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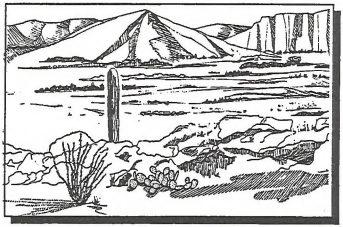
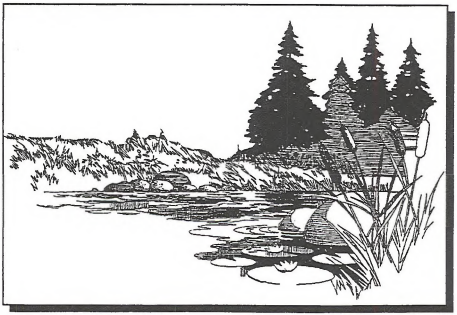
Managing The Nation's Public Lands

Annual Report of the Department of the Interior's Bureau of Land Management Fiscal Year 1993





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Fiscal Year 1993

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The Department of the Interior

As the Nation's principal conservation agency, the U.S. Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, and preserving the environmental and cultural values of our national parks and historic places.

The Interior Department also assesses our mineral resources and works to ensure that their development is in the best interest of all the people.

Additionally, the Department has a major responsibility for American Indian reservation communities and for people who live in the Island Territories under United States administration.

After many years of discussing a "Home Department," Congress in 1849 decided that creation of a Department of the Interior had become necessary to administer the vastly expanded land holdings acquired by the Federal Government through the Louisiana Purchase of 1803, the Mexican war of 1846-48 and the 1846 treaty with Great Britain by which the United States acquired the Oregon Territory. In addition to the General Land Office, custodian of these lands, the new Interior Department was given functional responsibility for the Office of Indian Affairs, Pension Office, Patent Office, and several smaller agencies including the Census of the United States.

Over the many years since that time, other duties have been added and spun off, and the Department of the Interior's role has changed from that of a general housekeeper for the Federal Government to that of custodian of its natural resources.

The Department manages more than 440 million acres of Federal lands, including some 360 national parks, about 500 wildlife refuges and vast areas of multiple use lands. Interior Department agencies include the Bureau of Land Management, Minerals Management Service, Office of Surface Mining Reclamation and Enforcement, U.S. Geological Survey, Bureau of Reclamation, Bureau of Mines, Bureau of Indian Affairs and Office of Territorial and International Affairs.

THE BUREAU OF LAND MANAGEMENT

The Bureau of Land Management (BLM), an agency within the Department of the Interior, manages the land that remains from America's original "public domain." The public domain, which originally comprised 1.8 billion acres, once stretched from the Appalachian Mountains to the Pacific Ocean. Two-thirds of that land was turned over by the United States to individuals, corporations and the States. The remainder was set aside for national forests, wildlife refuges, national parks, monuments and other public uses, leaving the BLM to manage 270 million surface acres and 570 million acres of sub-surface mineral estate.

The BLM, which is a successor to two former Federal agencies -- the General Land Office and the U.S. Grazing Service -- was formed during a government reorganization in 1946. Most of the public lands managed by the BLM are located in the Western States and Alaska, although small parcels are scattered throughout the East. These lands include some of the most beautiful natural features in the country, including towering rock formations, deserts, evergreen forests and fragile Arctic tundra. The BLM protects the lands under its jurisdiction while providing for numerous land uses, such as recreation, livestock grazing, and mining.

The BLM also maintains custody of nearly nine million pages of historic land documents, including copies of homestead and sales patents, survey plats and survey field notes. The BLM's cadastral surveyors define and mark the boundaries of the public lands, as public land surveyors have done for over 200 years.

ORGANIZATIONAL STRUCTURE

The BLM's National Office is in Washington, D.C. In addition, there are 12 State Offices, 58 District Offices, and 140 Resource Area Offices. The BLM has about 10,000 employees, most of whom work in field offices in the Western United States.

Under the Federal Land Policy and Management Act of 1976, the BLM manages the public lands in a way that accommodates multiple uses of those lands. Carrying out this multiple-use mandate requires many skills and talents. Foresters, range conservationists, wildlife biologists, archaeologists, and many other specialists are needed to care for and manage the public lands.

The following pages provide an overview of public land management during Fiscal Year (FY) 1993. Additional information about the agency is available from the BLM headquarters in Washington, D.C., or from State or local offices listed in the back of this publication.

MANAGEMENT AND QUALITY INITIATIVES

In an effort that complements President Clinton's National Performance Review or "reinventing government" initiative, the BLM has been conducting a reengineering effort to increase efficiency through streamlining operations and eliminating duplication. Nine work groups were established to review the areas chosen for reengineering: performance measures, budget, National Environmental Policy Act/land-use planning, the role of BLM program leaders, contracting, personnel, oil and gas inspection and enforcement, local business practices, and the National Historic Preservation Act.

Each work group included representatives from outside groups who use the public lands, those who are involved in processes such as obtaining permits, and those who supply the BLM with goods and services. In addition, a non-BLM representative and a program analyst from a non-related area participated. The groups began with a "blank page" that started from the customer's requirements, then made recommendations to BLM management in December 1992. The BLM is implementing many of these recommendations.

Recommendations to streamline and simplify the budget process and structure responded to President Clinton's directive for administrative cost reduction. By streamlining practices, the BLM expects to save money and time. This will enable employees to spend less time on budget work and do more on-site activities.

NATURAL RESOURCES MANAGED BY THE BLM *at a glance*

The BLM's mission is to protect and maintain the health and productivity of the land so that current and future generations of Americans can use and enjoy them. Below are some of the diverse resources that can be found on the 270 million acres of public land managed by the agency.

- Rangelands: About 170 million acres of rangeland that annually provide 10 million animal unit months (AUM) of forage to support about four million head of domestic livestock. An AUM refers to the amount of forage consumed by a cow and her calf, one horse, or five sheep in one month.
- Forests: 48 million acres, including almost eight million acres of commercial forest land with a productive capacity of about 1.4 billion board feet each year.
- Areas of Concern: 525 designated areas of critical environmental concern that encompass 8.7 million acres.
- Recreational Areas: Thousands of unique recreational areas, including 32 Wild and Scenic Rivers, 22 National Trails, 726 developed and semi-developed recreation sites, 2,381 day-use units and 22,366 family camping units, 65,000 miles of roads suitable for recreation travel by normal vehicle, 4.1 million acres of lakes and reservoirs, and thousands of areas open to a wide variety of recreational uses.
- Wilderness: More than 1.6 million acres of designated wilderness in 66 areas. An additional 10 million acres have been recommended for designation based on studies of 25 million acres completed by the BLM in 1991.
- Archaeological and Historic Sites: 223 archaeological and historical listings in the National Register of Historic Places comprising an estimated 45 million historical and archaeological properties located on BLM managed public land.
- Wildlife Habitat: Habitat for more than 3,000 species of wildlife, including over 200 Federally listed threatened or endangered species and such big game animals as caribou, brown and grizzly bears, desert bighorn sheep, moose, mule deer, and antelope.
- Fishable Streams: Nearly 169,000 miles of fishable streams containing steelhead trout, salmon, and other sport fish -- enough to encircle the earth six times.
- Wild Horses and Burros: Some 96 percent of all wild horses and burros managed, protected, and controlled under the Wild Free-Roaming Horse and Burro Act of 1971.
- Oil Reserves: About 1.4 billion barrels of proven oil reserves.
- Natural Gas Reserves: Approximately 12.5 trillion cubic feet of proven natural gas reserves.
- New Sources of Oil and Gas: Prospective sources of oil and gas on an undetermined portion of the 570 million acres of mineral estate.
- Minerals: The major portion of the undiscovered but geologically predictable deposits in the United States of aluminum, antimony, beryllium, bismuth, cadmium, chromium, cobalt, copper, fluorspar, lead, manganese, mercury, molybdenum, nickel, platinum group metals, silver, tungsten, and vanadium.
- Oil Shale: About 80 percent of the Nation's oil shale.
- Tar Sand Sites: All 11 of the Nation's major tar sand sites.
- Coal: About one-third of America's coal supply.
- Uranium: Some 35 percent of the country's uranium reserves.
- Chemical Resources: Significant deposits of phosphate, sodium, lead, zinc, and potash.
- Geothermal Energy: Prospective sources of geothermal energy on more than 55 million acres, plus two million acres of known geothermal resource areas.

PUBLIC LAND MANAGEMENT

The BLM administers the public lands in a manner that accommodates multiple uses of those lands. To improve its management of the land, the BLM is taking an ecosystem approach that seeks to ensure the productivity and biological diversity of the land. Ecosystem management focuses on the landscape's "big picture," rather than its separate components, and makes use of the best scientific information available. An ecosystem management approach is consistent with the Federal Land Policy and Management Act (FLPMA), which defines multiple use as the

> *"...harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination that will give the greatest economic return or the greatest unit output."*

The BLM moved forward in implementing an ecosystem-based approach for managing the public lands during 1993 as the number of examples of on-site ecosystem-based management continued to grow throughout the West.

In California, the BLM is working with other government and private agencies under a comprehensive biodiversity memorandum that encourages collaborative land-use planning at the local and regional levels.

In the Pacific Northwest, the BLM played a major role in developing President Clinton's Forest Plan, which takes an ecosystem approach to forest management. During 1993, the BLM also worked with the U.S. Forest Service to develop a watershed-based strategy (PACFISH) to restore anadromous fish habitat on BLM and Forest Service-administered lands outside the range of the northern spotted owl in Oregon, Washington, California, and Idaho.

Other BLM land-management activities include a *Bring Back the Natives* Initiative, which seeks to restore entire river systems with a number of partners; *Partners in Flight*, an international effort to restore habitat for neotropical migratory birds; and various local partnerships, such as the Applegate partnership in Oregon, which are working to restore land health while stabilizing the economies of local communities.

A Washington Office core team led development of ecosystem management activities at the headquarters level, and coordinated with the White House, the Department, and other national-level interagency working groups in order to share information, avoid duplicative efforts, and ensure a coordinated approach.

The BLM helped form the Interagency Ecosystem Management Coordination Group in 1993. The primary role of this group of more than 20 government agencies is to foster collaboration among Departments and agencies on the subject of ecosystem management. Members of the group include the BLM, the U.S. Forest Service, the Fish and Wildlife Service, the Soil Conservation Service, the National Park Service, the Bureau of Mines, the Bureau of Indian Affairs, the Department of Defense, the Department of Energy, and the National Biological Survey.

Through the Coordination Group, the BLM and other agencies were able to develop consensus on ecosystem management concepts, key words, and definitions. The group, which is also developing a national framework of ecological units, participated in an information and poster session sponsored by the Congressional Research Service at the request of six congressional committees.

The BLM's ecosystem management approach was presented at the International Wildlife Management Congress in Costa Rica in 1993. The theme of the conference was "Integrating People and Wildlife for a Sustainable Future."

RECREATION

Administering a 1993 budget of $25 million, the BLM's Recreation Division implemented a range of strategies under *Recreation 2000* that united local economic growth and minimum-impact recreation without compromising the diverse ways Americans choose to enjoy their public lands. *Recreation 2000* is a long-range initiative designed to provide the widest diversity of recreational opportunities on BLM-administered lands.

The BLM's recreation planners highlighted visitor services as a major priority for 1993. Increased extended family and individual use has required development of larger, more specialized facilities. The public also is seeking and demanding more information on recreation opportunities. As a result, the BLM is using interpretive methods and providing visitor services to enhance and develop public awareness of the visitors' relationship to resource values in ecological units. Specific interpretive tools include trained interpreters, a reliable resource information base obtained through data collection, visitor centers, signs, and publications.

The BLM was able to stretch its $24,976,000 recreation appropriation through Partnership Matching Funds. Private partners supplied $9.7 million to match $1.2 million from the Bureau.

Nearly 8,500 volunteers contributed 467,000 volunteer hours to BLM projects, resulting in a cost savings of $3.8 million in FY 1993. BLM set aside $570,000 to further develop the volunteer program.

Another $900,000 was set aside to sustain the challenge-cost share initiative. Over 100 on-going recreation projects use matching funding.

Fees Collected and Other Revenue

- $1,481,000 collected from the sale of Special Recreation Permits.
- $706,662 collected from the sale of Recreation Use Permits.
- $296,000 collected from the sale of Concession Leases. BLM has 21 concessions, including 16 on the lower Colorado River, with a net 5.1 million visits in FY 1993.

Interpretation

The BLM's interpretation program stresses on-site programs, such as wayside exhibits, information kiosks, Back Country Byway exhibits, single-issue brochures, and self-guided tours, all of which enhance the public's understanding of their natural and cultural resources.

In 1993, the BLM created a new position in Colorado to coordinate national interpretive program activities. This will enable the bureau for the first time to coordinate interpretive activities bureauwide, resulting in standardized messages and a better informed public. The State of Colorado and the BLM set up a local cooperative interpretation program in 1993 at Red Rocks. In addition, the BLM co-sponsored an interagency workshop at the National Association for Interpretation Conference, along with the Forest Service, the Fish and Wildlife Service, and the Army Corps of Engineers. The meeting resulted in a strategy for cooperating on interpretive contracts for wayside exhibits.

Accessibility

The BLM has established a national policy, called "Access Means Freedom," to give all Americans, including the disabled, the opportunity to have access to and enjoy the public lands.

BLM co-sponsored the production of a video program with the Forest Service, the University of Minnesota and the Wilderness Inquiry. Titled *Universal Access to Outdoor Recreation: A Design Guide*, the videotape was distributed to the BLM's District and State Offices to foster understanding of the universal design policy. Also in 1993, the BLM and the Forest Service

developed a publication titled "A 'How To' Guide for Outfitters" to help private businesses institute accessibility standards.

Recreational Partnerships

The BLM continued to create and expand its recreational partnerships in FY 1993, with other government agencies and the private sector. These partnerships help the BLM promote recreational opportunities while educating public land users about their stewardship responsibilities on the public lands.

For example, the *Leave No Trace* program promotes minimum-impact environmental standards and sets up a network of teachers across the country. This is a partnership with the National Outdoor Leadership School, the BLM, the National Park Service, the Fish and Wildlife Service, the Bureau of Reclamation, and the Forest Service. In 1993, the BLM took the program to the Boy Scout Jamboree to teach 11,000 youths about lands ethics for back country users. The BLM also trained several masters in the program in order for them to train others. The Bureau also participated in developing a 20-minute video distributed to all BLM State Offices and hosted interpretive activities, such as campfire programs, school presentations, and guided walks.

The BLM was a participant in the further development of the National Mountain Bike Strategy, a partnership program involving the National Mountain Bike Association, local biking clubs, land managers, and private industry. This strategy identifies problems associated with the overuse of public lands by mountain bikers and develops methods of mitigation.

A partnership with the National Association for Interpretation and BLM resulted in a national interpretation workshop, to which the BLM contributed $5,000. This provides the major training opportunity for interpretive professionals and allows an exchange of information and ideas among Federal and non-governmental agencies. Several BLM employees made presentations to the group.

The BLM's Oregon/Washington Office entered into an Interagency Agreement to further augment the development of an innovative environmental education center focusing on fish, particularly salmon and steelhead and their habitat.

Another partnership involving the BLM and the western chapter of the National Snowmobile Association resulted in a Memorandum of Understanding that allows local snowmobile clubs to develop and maintain snowmobile trails on public lands.

Travel and Tourism

In FY 1993 the BLM worked to increase economic opportunities for local communities through travel and tourism, a priority under *Recreation 2000.* Nearly 70 percent of all travel to Western States is pleasure-related. Travel and tourism generates over $350 billion a year in the U.S., with six million people directly employed in travel- and tourism-related industries. BLM-managed lands are attractive to many international travelers, who spend about $30 billion in the U.S. each year.

BLM is working to improve adventure travel opportunities, such as white water rafting, guided tours, and wilderness vacations, in order to enhance and assist local business opportunities. Similarly, BLM is increasing opportunities for mountain biking, rock climbing, off-highway vehicle use, and caving. Toward this end, the Bureau is improving access, marking trail heads and improving signs on highways and roads. The Bureau also is developing and improving recreation facilities, such as campgrounds, trails, and boat-launch areas, which provide both high-quality recreation opportunities and support local tourist-related businesses. For example, the Moab District BLM completed three campgrounds and seven trailhead kiosks in 1993 along the Colorado River corridor where visitor use continues to expand.

In addition, the BLM places an emphasis on providing information directly to visitors. The BLM is working with firms and organizations that produce general and specialized recreation publications to inform and direct visitors to appropriate recreation areas and facilities. The BLM supports specialized facilities, such as visitor centers, museums, and ranger stations, which are designed to attract visitors to local communities. For example, the BLM was a major sponsor of the interagency visitor center in Moab, Utah, which opened in 1993 and received over 100,000 visitors during its first year of operation. Also in 1993, the Bureau coordinated a Tourism Council on statewide tourism opportunities and information projects in Arizona. Recreation visitation to the Yaquina Head Area in Oregon exceeded 400,000 for the second straight year. The BLM has begun work there on transforming an abandoned quarry into a three-acre rocky intertidal zone. The BLM also co-sponsored the Utah Governor's Conference on Recreation and Tourism, held in Ogden in May. In partnership with five States' tourism and rural economic development groups, the BLM printed an Old West Trails map/brochure to focus on Federal recreation opportunities in Wyoming. The BLM also completed the fourth in a series of four fishing maps for the public lands in Wyoming.

Back Country Byways

The BLM manages over 50 Back Country Byways (roads or trails) covering 3,000 miles that are selected for their scenic, historic, cultural, or recreational value. They provide opportunities for scenic driving, tell the BLM's multiple-use story, and assist rural economies by enhancing tourism opportunities. The program has three national sponsors: the American Recreation Coalition, Farmers Groups of Insurance Companies, and American Isuzu Motor Company. In addition, hundreds of local partners are involved in individual Back Country Byways. In 1993, the Historic Route 66 Back Country Byway in Arizona was dedicated at an event that was attended by the three national sponsors. Also in Arizona, the BLM designated the Black Hills Back Country. In Utah, the BLM joined with KBYU-TV in a partnership to produce a video program for the Public Broadcasting System (PBS) featuring three BLM Back Country Byways in Utah and participated with several groups in redesigning, reconstructing, and installing the "Drive Through the Ages" interpretive sign series along Utah's Scenic Highway 191.

Hiking and Mountain Biking

Patterned after Back Country Byways, trails are being constructed, inventoried and mapped. The end result will be a dedicated system of trails and bikeways scattered throughout the Western States appropriate for both special and multiple-use activities. The BLM designated Betty's Kitchen in Arizona as a National Recreation Trail in 1993. In addition, the BLM's National Historic Oregon Trail Interpretive Center at Flagstaff Hill, Oregon, hosted 347,000 visitors and conducted over 800 living history and theater presentations. Volunteers there contributed over 12,000 hours of work. Utah's Moab District BLM Slickrock Bike Trail was designated as a National Recreation Trail.

BLM's leadership in mountain biking management is showcased through site-specific actions, including the development of trails, staging areas, and associated facilities. In 1993 the BLM, with the aid of partners, responded to the growing use of public land facilities at Moab, Utah, an internationally known biking location. Together they installed waste-management areas, graveled a parking and staging area, and provided trail information.

The BLM signed and implemented a Memorandum of Understanding with the Shimano Corp., the world's largest manufacturer of bicycle components, to develop a national public information and education campaign to promote proper trail use and good environmental ethics.

Rivers

BLM is the leader in river management in the West, administering one-fifth of all the wild and scenic rivers in the National Wild and Scenic Rivers System. The agency manages 32 rivers, extending over 2,000 miles in length. In 1993 the BLM co-sponsored a number of national river management meetings, including Confluence 1992-1993 and the Idaho Rivers Symposium.

Off-Highway Vehicles

Off-Highway Vehicle (OHV) management efforts of the BLM are directed at vehicle use designations, operation of special OHV recreation areas, and improving OHV user safety and land ethics.

In 1993, the BLM extended its formally dedicated OHV trails to 10,000 miles. There are another 53,000 non-dedicated miles available for OHV use.

The BLM was the first Federal agency to enter into partnership with the OHV industry to provide safety and outdoor ethics training to All-Terrain Vehicle (ATV) users. Environmental education continued with *Tread Lightly!*, a program designed to teach young OHV riders environmentally sound riding practices to reduce noise and resource damage.

Other Activities

As part of its *Adventures in the Past* initiative, the BLM hosted an event from October 3-10 to commemorate the Columbus Quincentennial anniversary of the encounter between the Old and New Worlds. *A Meeting of Two Worlds* consisted of two symposiums, one in Arizona and one in New Mexico, connected by a five-day bus tour. The event interpreted Spain's interaction with the land and native peoples in the settlement of the American Southwest. It included perspectives of more than 30 nationally and internationally noted historians, archaeologists, anthropologists, and Native American individuals and tribes.

The BLM finalized regulations called for by the National Cave Resources Act, passed in 1988. The act requires that the Department of the Interior inventory and list all of the caves managed by Interior agencies on public lands.

FISH AND WILDLIFE MANAGEMENT

The BLM manages more fish and wildlife habitat than any other single agency or organization in the nation. Since 1987, *Fish and Wildlife 2000* has provided a consistent strategy for managing the 3,000-plus species of vertebrates that occur on the public lands. Through *Fish and Wildlife 2000*, the BLM is assisting in the recovery of Federally listed species, enhancing fish and wildlife recreational activities, integrating ecosystem management concepts into the BLM's renewable and nonrenewable resource programs, and entering into an era of partnerships with private sector organizations, businesses, and other domestic and international government agencies. Implementation of this strategy has been guided by a number of individual strategies for particular groups of species, such as nongame migratory birds, waterfowl, or anadromous fish. The BLM is steadily shifting away from single-species management toward an ecosystem-based approach.

This approach increases the need for partnerships and collaboration, and a majority of wildlife-related projects completed by the BLM in 1993 involved one or more participating partners.

The BLM also has broadened the scope of species receiving management attention in 1993 -- from traditional game species to such groups as neotropical migratory birds, bats, reptiles, and amphibians. More information on the BLM's fish and wildlife activities can be found in *Fish and Wildlife 2000, Annual Report of Accomplishments for 1993.*

Habitat Management for Birds

Most of the over 800 species of birds in the United States occur on BLM lands during some period of the year. Birds are extremely sensitive to changes in the environment and thus serve as important indicators of ecosystem health.

The BLM manages over 20 million acres of waterfowl habitat. In 1993, the BLM began implementing *Waterfowl Environments Today and Tomorrow* (WETT). Several projects were initiated in 1993, enabling the BLM to enhance or create more than 107,551 acres of waterfowl habitat in 10 states. The BLM also drafted the *Green River Ecosystem Plan*, which involves restoration or creation of some 150,000 acres of waterfowl habitat in Wyoming.

More than 23 species of upland game birds, including quail, grouse, Chukar, pheasant, and wild turkey, are found on BLM lands. The BLM completed the upland game bird habitat management plan in 1993 to guide management activities bureauwide. In 1993, the BLM carried out projects across the Western United States to benefit upland game birds, including putting up fencing and conducting inventories and surveys.

BLM lands provide important habitat for neotropical migratory birds that breed in North America and winter in the New World tropics. Some of the most beautiful and musical songbirds belong to this group. The BLM participates in an international group, *Partners in Flight-Aves de las Americas,* which seeks to coordinate State, Federal, national and international efforts to stabilize declining populations of these birds. In 1993, the BLM added a nongame bird program manager to the Western Fish and Wildlife staff. This individual oversees the implementation of the BLM's Nongame Migratory Bird Habitat Conservation Plan.

An unusually large number of raptors -- avian predators -- occur on BLM-managed lands. In order to provide adequate habitat management for these species, the BLM and partners established the Raptor Research and Technical Assistance Center to provide a focal point in the management of these species. It was subsequently transferred to the Interior Department's National Biological Survey. The Center produces a newsletter, works with the utilities industry, and coordinates surveys and monitoring activities in order to increase public awareness and enhance on-site management of raptors.

Habitat Management for Terrestrial Species

The BLM maintains important habitat for big game, such as elk, deer, and desert bighorn sheep. Although these may be the most visible and recognizable terrestrial species on BLM-managed lands, they share their habitat with a larger variety of smaller, more obscure wildlife.

BLM is placing more management emphasis on these previously neglected and lesser understood species, which include amphibians, bats, and even insects.

Recent concern over global declines of amphibians, and the disappearance of entire populations in certain areas of the West, has prompted a growing interest in these smaller species. Amphibians, which are associated with aquatic and moist upland ecosystems, are one of the best indicators of environmental quality. In 1993 the BLM conducted several significant amphibian and reptile inventories, surveys, and research projects to determine the status and aid in the recovery of special-status species, such as the dune sagebrush lizard, gray checkered whiptail, river cooter turtle and blotch plain-bellied water snake in New Mexico; Mexican garter snakes, lowland leopard frogs, and flat-tailed horned lizards in Arizona; and the western pond turtle in Oregon.

Bats are another group of animals that often play a critical role in ecosystems. They are not well understood, however, because of their nocturnal habits, inaccessible breeding and roosting sites, and migratory behavior. In 1993, the BLM signed a Memorandum of Understanding (MOU) with Bat Conservation International (BCI) to further education about, and management of, bats on public lands. The Bureau is inventorying old mine shafts for bats and initiating policy discussions to ensure that bats using abandoned mines are protected.

Invertebrates are recognized as vital components of biotic communities. Invertebrate species, such as the endangered American burying beetle, the rare Armargosa vole, the Mary's Peak blind beetle, and the Idaho Dune tiger Beetle, are receiving more attention as the BLM focuses on restoring and maintaining healthy ecosystems. Although the roles of invertebrates are not well understood, the BLM will focus more management attention on them in the coming years.

Habitat Management for Fish

The BLM manages nearly 170,000 miles of stream and associated riparian habitat and 2.4 million acres of lakes, mostly in Alaska. In addition, the BLM manages about 173,000 acres of reservoirs. In California, Washington, Oregon, and Idaho, the BLM manages 8,000 miles of streams in 104 watersheds containing over 140 stocks of anadromous salmon, steelhead, and sea-run cutthroat trout that are at moderate to high risk of extinction. In the Intermountain West, BLM-managed lands contain over a dozen distinct forms of native trout. The Southwest deserts contain a diverse array of desert ponds and springs harboring many unique fish species adapted to live in these harsh environments.

In 1993, the BLM focused on improving anadromous fish habitat through the *Anadromous Fish Habitat Management Plan.* It contains three regional initiatives: Columbia Basin, Coastal, and Alaska. A number of monitoring projects, inventories, stream temperature studies, channel construction work and habitat improvement projects were completed under these initiatives in 1993 in Oregon, Washington, California, Idaho, and Alaska. In addition, the BLM joined the U.S. Forest Service in developing an ecosystem-based strategy to restore anadromous fish-producing watersheds on Federal lands in the Northwest, commonly referred to as PACFISH.

Careful management of resident fish species helps preserve the biological integrity of ecosystems and associated watersheds. It also provides immense economic and recreational benefits to the public. In New Mexico, the Gila Box Riparian National Conservation Area completed a plan to guide management along 38 miles of riparian canyons. At Lake Havasu, Arizona, the BLM's completion of access sites in 1993 resulted in an increase of 17,000 angler use days per year. Other activities benefiting resident fish included tree planting and erecting erosion-control dams. The BLM also tied discarded Christmas trees in weighted bundles and placed them underwater to improve habitat complexity.

Habitat Management for Special-Status Species

Public lands provide part or all of the habitat requirement for 190 species listed as threatened or endangered under the Endangered Species Act. The Act requires the BLM to carry out programs for these species and the 16 million acres of associated habitat on BLM-managed lands. Fulfilling this requirement involves dozens of formal and informal consultations with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.

The BLM manages habitat for these special species through several strategies, including the *Rare Plants and Natural Plant Communities Plan* and the *Special Status Fishes Management Strategy Plan.* The BLM also has joined with the Forest Service and the National Fish and Wildlife Foundation in *Bring Back the Natives,* a national campaign designed to restore entire river systems and improve the status of native aquatic species on public lands. Many well-known species, such as the desert tortoise and black-footed ferret, have received considerable management attention. Lesser known special-status species, such as turtles, snakes and frogs, also benefited from BLM-sponsored research and monitoring projects in 1993 in New Mexico, California, Arizona, and Nevada.

Partnerships and Challenge Cost Sharing

Since 1987, the BLM's fish and wildlife program has benefited from over $20 million in Challenge Cost Share work, which involves matching private contributions with Federal dollars. These arrangements have led to cost-effective improvements, including inventory training, surveying, fencing, monitoring, and habitat restoration.

WILD HORSE AND BURRO MANAGEMENT

More than 46,000 wild horses and burros roam the public lands administered by the BLM in 10 Western States. The BLM administers the Wild Free-Roaming Horse and Burro Act to protect, manage, and control wild horses and burros on the public lands. To maintain healthy herds of these animals and to maintain a thriving natural ecological balance on the range, the BLM removes excess animals and places them in private care through the Adopt-a-Horse program.

The adoption program placed 7,251 (6,120 wild horses and 1,131 burros) animals in private care in FY 1993. To facilitate the adoption program and to improve cost efficiency, the BLM has initiated a selective wild horse removal policy. Under this policy, only wild horses deemed adoptable are removed from the range. All of these are placed in the adoption program.

In June 1992, the *Strategic Plan for Management of Wild Horses and Burros on Public Lands* was approved by the Director of BLM. It incorporates the recommendations of the reestablished National Wild Horse and Burro Advisory Board. It is a comprehensive initiative that provides the direction for achieving long-range management goals, including attainment of appropriate management levels on all herds within six years. Other goals include increased habitat management, improved efforts in the adoption program, increasing partnerships, and incorporating new research into the wild horse and burro program. Continued implementation of the Strategic Plan was a major thrust of the wild horse and burro program in FY 1993.

The Strategic Plan also incorporates management techniques to initiate and evaluate the efficacy of using anti-fertility techniques to reduce annual herd reproductive rates. In December 1992, a pilot project was launched in two herd management areas in northeast Nevada. The herds are being monitored to evaluate the effectiveness of the fertility treatments and the impact on population. The pilot project will continue through December 1994.

In June 1993, the BLM awarded a contract for a single sanctuary, which went to the proprietors of the existing sanctuary, Tadpole Cattle Company of Bartlesville, Oklahoma. This sanctuary holds about 1,600 older or unadoptable wild horses captured before implementation of the Strategic Plan.

FORESTRY

The BLM manages 50 million acres of forest land. It is of enormous variety, from the boreal forests of Alaska and Douglas-fir in the Northwest to forests of ponderosa and lodgepole pine in the Intermountain West and piñon pine in the Southwest.

Adapting to Change

The management philosophy for forest lands is shifting from one of sustained yield, which emphasizes outputs, to one of restoring forest health. Forests provide fish and wildlife habitat, recreational opportunities, and clean water, as well as products -- such as timber, pine nuts, mushrooms, sawlogs and fuelwood. The BLM is taking a closer look at how the agency can sustain the health of these forests while considering the needs of future generations.

The sale of forest products is being increasingly used as a mechanism to influence forest structure. The goal is to restore sustainable conditions in forests, which have been altered by the exclusion of fire and by harvesting practices designed to produce maximum wood volume.

Forest Ecosystem Management Assessment Team (FEMAT)

On April 2, 1993, President Clinton convened a day-long conference on Forest Management in the Pacific Northwest and Northern California. It sought a balanced solution to the forest management issues in the region. As a result, a team of scientists and managers was assembled to develop alternatives that would protect threatened and endangered species of plants and animals, restore and maintain functioning ecosystems, and stabilize the economy of the area.

Ten alternatives were developed, focusing on a system of land allocations across the landscape that include late-successional (mature) reserves, riparian reserves, and matrices where timber harvesting is allowed. (Matrices are areas outside of reserves.) A Draft Environmental Impact Statement was prepared and presented to the public for comment.

Forest Products

The BLM in 1993 was under two court injunctions in western Oregon that virtually halted most of the western Oregon timber sale program. Volume offered in western Oregon consisted primarily of salvage or of thinning in young stands.

During the year, 48 million board feet were sold from lands outside western Oregon and 40 million board feet were sold in western Oregon. Concerns for the spotted owl and Pacific anadromous fish reduced offerings in northern California and eastern Oregon. Sales there concentrated on offering salvage timber killed or damaged by fire, insects, disease, and drought. Sales of products measurable in board feet generated $24.5 million in receipts. The sale of approximately 40,000 permits for over 25 non-timber products from the forest generated $294,000.

Forest Regeneration and Development

Reforestation following harvest, fire, disease, and insect infestation included the planting of 6.26 million trees on 12,522 acres in 1993. This is in addition to the thousands of acres which regenerate naturally each year. Reforestation success exceeds 90 percent due to improvements in seedling production and in handling and planting methods. Only native species adapted to the planting site are used. Other practices include site preparation (10,296 acres), maintenance of existing plantings (36,531 acres), stocking control (12,015 acres), and other practices such as underburning and fertilization (4,927 acres).

Global RELEAF Program

The "Global RELEAF" program is sponsored by American Forests, an organization dedicated to bringing citizens closer to forest resources through action-oriented programs. It provides opportunities to reforest and restore forest environments on BLM lands. Funds were used in 1993 to restore watershed values on the Mattole River in California, the San Pedro River in Arizona, the Blackfoot in Montana, the Marys River in Nevada, Fall Creek near Salem Oregon, and the Virgin River in Utah. Funds also are being provided to reforest a burned area in Wyoming and cut-over homestead lands in New Mexico.

RANGELAND RESOURCES

Congress has authorized grazing on Federal lands under three laws -- the Taylor Grazing Act of 1934, the Federal Land Policy and Management Act of 1976 and the Public Rangelands Improvement Act of 1978. The BLM administers livestock grazing on 22,000 allotments comprising about 170 million acres of public rangeland, mostly in 11 Western States. In 1993, more than 19,000 permittees grazed livestock on BLM-managed lands. These ranchers typically use a mix of private, State and public rangelands because of the West's patchwork pattern of land ownership. The importance of public lands in this mix is shown by the fact that about one-third of the beef cattle in 11 Western States graze at least part of the year on public rangelands.

During fiscal year 1993, Secretary of the Interior Bruce Babbitt announced an outline of the Rangeland Reform '94 initiative, aimed at improving the Federal Government's management of public rangeland resources.

The principal objective of the BLM's rangeland management program is to protect rangeland resources while managing the land for multiple uses, including livestock grazing. To develop sound land-use plans, the agency works with range users and other interested parties at the national and local levels. After drafting land-use plans and preparing environmental impact statements, the BLM implements management through grazing allotment management plans or coordinated activity plans. These plans identify grazing management prescriptions and other actions that are needed to achieve site-specific vegetation and other resource management objectives. The BLM prepared 102 grazing activity plans during FY 1993.

Grazing Fees

The existing grazing fee formula was established by Congress in the Public Rangelands Improvement Act of 1978; although the formula was set to expire at the end of 1985, it was extended by a presidential Executive Order in 1986. The formula reflects changes in the livestock industry's economic conditions -- specifically, the cost of production, the price of beef, and forage values. Under this formula, grazing fees rise when the livestock industry prospers, and fall when the industry declines. The fee was $1.86 per animal unit month (AUM) in 1993, down from $1.92 in 1992. (An AUM is the amount of forage consumed by a cow and her calf, one horse or five sheep in one month.)

The BLM collected $17.4 million in grazing fees in FY 1993, down from $18.5 million the previous year. The agency distributed $3.2 million in grazing receipts to States and counties in 1993. The BLM in FY 1993 inventoried 3.5 million acres and undertook new monitoring studies on 5.2 million acres of rangeland. Overall, the agency has developed 3,077 allotment and coordinated activity plans on 68.4 million acres, of which 729 plans on 20.3 million acres address riparian issues. The livestock grazing prescriptions of these plans are enhanced by the development of water facilities and fence construction, along with soil and vegetation treatments that are designed to achieve desired plant communities.

Riparian-Wetland Management

Riparian (streamside)-wetland areas comprise about 23.2 million, or more than eight percent, of the public land acreage administered by the BLM. The agency works to protect these economically and environmentally valuable areas through its *Riparian-Wetland Initiative for the 1990's.* This program sets goals and strategies for the agency in its efforts to upgrade the ecological condition of riparian-wetland areas. The principal objective of the initiative is to get at least 75 percent of these areas into what the BLM calls "proper functioning condition."

Riparian-Wetland Acreage Under BLM Management
(estimated; most recent data available)

State	BLM-Administered Land (acres)	Riparian-Wetland (acres)	Riparian-Wetland Area (percent)	Riparian Stream-(miles)
Alaska	89,712,202	22,200,500	24.75	132,700
Arizona	14,254,167	50,000	0.35	1,400
California	17,255,824	139,200	0.81	3,500
Colorado	8,314,757	66,900	0.81	4,320
Eastern States	22,573	4,300	19.0	10
Idaho	11,861,686	57,900	0.49	4,930
Montana	8,077,253	118,000	1.40	9,000
Nevada	47,966,217	38,100	0.08	2,230
New Mexico	12,878,359	63,850	0.50	380
Oregon/ Washington	16,054,587	238,000	1.48	7,640
Utah	22,147,582	149,000	0.67	4,560
Wyoming	18,398,385	89,600	0.49	7,155
Total	**266,943,592**	**23,215,350**	**8.70**	**177,825**

Riparian areas are lands adjacent to creeks, streams, lakes, and rivers. They are sometimes called "green ribbons" because the vegetation on waterway banks forms a ribbon-like pattern when seen from the air. These areas, containing scarce water and vegetation in the otherwise arid Western United States, are important to fish and wildlife species, as well as to livestock. Since they filter the water flowing through them, riparian-wetland areas can affect the health of an entire watershed.

Wetlands are generally defined as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support -- and which, under normal circumstances, do support -- vegetation that is typically adapted for life in saturated soil. Wetlands include bogs, marshes, shallows, muskegs, wet meadows, estuaries, and riparian areas. The BLM links riparian areas and wetlands for purposes of assessing the agency's progress in getting these areas into proper functioning condition.

A riparian-wetland area is healthy and functioning when adequate vegetation, landform or large woody debris is present to dissipate energy associated with high water flow. A healthy riparian-wetland area exhibits certain characteristics, such as: purifying water by removing sediments as water moves through; reducing the risk of flood damage; reducing streambank erosion; increasing available water by holding water in stream banks and aquifers; maintaining instream flows and streambanks; increasing ground water supplies; supporting a diversity of wildlife and plant species; maintaining habitat for healthy fish populations; providing water, forage and shade for livestock; and creating opportunities for recreationists to fish, camp, picnic and relax.

The table below depicts the condition of riparian-wetland areas on BLM-managed lands for the 11 Western States and Alaska in fiscal year 1993. Inventories planned for the 55 percent of riparian-wetland areas now in the "unknown" category are expected to show similar distributions in the proper functioning, functioning-at-risk and non-functional categories.

Condition of Riparian-Wetland Areas by Class in 1993 (including unknown areas)

Condition Class	Western States	Alaska	Total BLM
Proper functioning condition*	15%	67%	65%
Functioning-at-risk** (susceptible to degradation)	21%	1%	1%
Non-functional#	9%	0%	1%
Unknown##	55%	32%	33%

The functioning condition of riparian-wetland areas is determined by an interaction of geology, soil, water and vegetation. The condition classes depicted in the table above are defined as follows:

* *Proper functioning condition:* Riparian-wetland areas are properly functioning when adequate vegetation, landform or large woody debris is present to: dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality; filter sediment, capture bedload and aid floodplain development; improve flood-water retention and ground water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat, water depth, duration and temperature necessary for fish production, waterfowl breeding and other uses; and support greater biodiversity.

** *Functional-at-risk:* Riparian-wetland areas are considered functional-at-risk when they function but are susceptible to degradation due to a soil, water or vegetation characteristic.

Non-functional: Riparian-wetland areas are deemed non-functional when they do not provide adequate vegetation, landform or large woody debris to dissipate stream energy and thus do not reduce erosion or improve water quality. The absence of certain physical characteristics, such as a floodplain, is an indicator of a non-functional riparian-wetland area.

Unknown: Riparian-wetland areas in this category are those whose functioning condition has not been determined because the BLM lacks sufficient information about them.

With the help of public land users (such as ranchers and mining companies) and conservation groups, the BLM has been making progress toward the goals of the Riparian-Wetland Initiative.

In fiscal 1993, the BLM:

• Completed 180 activity plans and prepared or revised an additional nine resource management plans that dealt with riparian issues.

• Inventoried 1,055,300 acres, including 774,000 acres of wetlands in Alaska and 281,300 acres (or 1,944 miles) of riparian-wetlands in the contiguous Western States.

• Developed 567 new riparian-wetland improvement projects, which included water development, fence construction and plantings of trees, shrubs and grass.

• Maintained 752 existing riparian-wetland projects.

• Monitored 1,096 management plans with riparian-wetland objectives.

• Acquired 36,833 acres of riparian-wetland areas, primarily through land exchanges and donation.

• Gave six Riparian Stewardship Awards, which recognize those who help the BLM carry out the *Riparian-Wetland Initiative for the 1990's.*

• Conducted 108 instream flow assessments to determine the water quantity needed to support healthy riparian-wetland areas.

• Managed 145 areas with riparian features through partnerships, primarily with State and private cooperators.

• Completed numerous training, public outreach and research efforts to promote awareness of the importance of healthy riparian-wetland areas.

• Mitigated the impact of surface-disturbing activities, such as road building, pipeline construction, mineral exploration or development and recreation activities.

More information on this initiative can be found in the *Annual Report of Accomplishments of the Riparian-Wetland Initiative for the 1990's, Fiscal Year 1993.*

SOIL, WATER AND AIR QUALITY

Soil Resource Inventory

The BLM completed soil surveys on 2.4 million acres of public land in fiscal year 1993. With the addition of this acreage, about one-half of the public land in the lower 48 states has been surveyed at a level suitable for BLM land-use planning efforts. Soil surveys provide information about soil capabilities and health for use in land-use planning and other land management activities, such as watershed analysis, salinity control, and riparian area management.

Work continues in Arizona to better define desert ecosystem boundaries based on soil-climate classification. In Nevada, the BLM is completing soil surveys to help define habitat for the threatened desert tortoise.

An integrated soil-terrain resource analysis process was developed and used in assessing salt delivery to the Colorado River from Utah's Sagers Wash. This process uses advanced Geographic Information System (GIS) techniques and predictive modeling.

Watershed Management and Best Management Practices

The BLM is identifying specific water-quality problems on public lands throughout the West. Working with other Federal and State agencies and private landowners, the agency is preparing plans and actions to implement projects and best management practices. For example, in the Butte District in Montana, the BLM identified 24 existing and potential non-point source problems for priority corrective action. The agency is also applying best management practices for timber harvesting, mining, and grazing.

Another example is the Rio Puerco Watershed in New Mexico. Identified by the State of New Mexico as an impaired watershed, the Rio Puerco contributes less than 10 percent of the water, but 50 percent of the silt, entering the Rio Grande above Elephant Butte Reservoir. The BLM is working to identify sources of sedimentation, analyze the cost-effectiveness of alternative management practices and to promote voluntary implementation of best management practices throughout the 2.2 million-acre watershed.

Nationwide, the BLM implemented 300 watershed improvement projects and maintained 170 projects.

Colorado River Basin Salinity Control

The BLM continues work to reduce salt delivery to the Colorado River as part of the Colorado River Basin Salinity Control effort. Examples of specific accomplishments related to this effort include:

- Completion of repairs to the Warren Dikes in Arizona to reduce runoff and salinity yields to the Virgin River;
- Transfer of BLM land to the Colorado Division of Wildlife to mitigate wetland losses associated with salinity control efforts in the Grand Valley of Colorado;
- Investigation of the hydrology, salinity and brine contamination problem of the Aneth Oil Field in New Mexico;
- Implementation of the Castle Peak salinity control unit in Utah;
- And stabilization of an aging water spreader system in Wyoming.

Acid Rain and Climate Monitoring

The BLM operated 10 monitoring stations for acid rain in the Western United States. The stations are part of a national network to provide information to the BLM, the Environmental Protection Agency, and State and local governments on the trend in acid deposition. Also, the BLM operated over 200 remote climate stations to provide climatological information where it is not generally available for other sources.

Water Rights

The BLM completed water source quantification on 32,400 water right claims. Of these, 29,000 reflected several years of water rights work in connection with the Snake River Water Rights Adjudication in Idaho.

LANDS AND REALTY PROGRAMS

These programs provide realty and other services associated with land transactions or land-use authorizations necessary to support programs within the BLM and to assist individuals, communities or other government agencies outside of the BLM. This includes providing access to the public lands; granting rights-of-way or special permits for use of the public lands; exchanging lands; and leasing, selling or buying land parcels.

The lands program also maintains records for all land owned by the United States, provides title and information services to the public, and conducts appraisals. The BLM is currently automating millions of records for easier retrieval and use.

Special Uses of the Public Lands

Land-use authorizations or permits are required for some uses of the public lands. The BLM grants land-use permits for such diverse projects as filming and conducting research. The agency also leases public land for special purposes, such as agricultural production.

Recreation and Public Purposes

The Recreation and Public Purposes (R&PP) Act authorizes the BLM to provide land -- either through sale or lease -- to State and local governments or to nonprofit groups at a reduced price. This land must be used for public purposes, such as building schools, hospitals, parks, or, in the case of nonprofit groups, building churches or other community projects. In FY 1993, the BLM granted 92 R&PP leases.

Land Sales

The Federal Land Policy and Management Act of 1976 authorizes the BLM to sell land to individuals and public entities at fair market value after it has been determined that the land is available for disposal. In fiscal year 1993, the BLM sold 4,291 acres in this manner.

Rights-of-Way

With the granting of rights-of-way, individuals and local and State governments can obtain authorizations to use the public lands for certain single uses. In fiscal year 1993, the BLM authorized 3,184 new rights-of-way for facilities, such as water and natural gas pipelines, electric transmission lines, roads, telephone lines, communication sites for radio or other broadcast facilities, hydropower facilities, and drainage ditches.

The Trans-Alaska Pipeline System (TAPS) crosses 800 miles of Federal and State lands in Alaska under a right-of-way grant. The BLM, other Federal agencies and the State of Alaska formed the Joint Federal/State Pipeline Office (JPO) in 1990. The Bureau continues to act as the lead Federal agency to monitor pipeline activities for compliance with and enforcement of the conditions of the right-of-way grant, permit terms and conditions. The JPO staff also is responsible for issuing permits necessary for the operation and maintenance of the Trans-Alaska Pipeline System. In 1993, the BLM, the JPO and Alyeska, the TAPS management company, conducted a thorough

review of TAPS procedures and operations in order to improve management and safety.

Access

The BLM provides access to public land by acquiring easements on non-Federal land for roads and trails. Access is provided to lands important to BLM's resource management programs, such as wildlife enhancement, timber management, energy and mineral production, and recreation. This program has opened millions of acres of public land that otherwise would have been inaccessible. The BLM acquired 139 easements in 1993.

Land and Water Conservation Fund and Other Acquisitions

The Land and Water Conservation Fund (LWCF) finances the acquisition of non-Federal lands for recreation and conservation purposes. Lands acquired contain critical resource values such as recreation, threatened and endangered species, cultural resources, crucial wildlife habitat, and wetlands. Several Federal agencies draw upon the LWCF to finance land acquisitions, including the National Park Service, Forest Service, Fish and Wildlife Service and the BLM.

The fund also is used to assist States in planning, acquisition and development of outdoor recreation opportunities. The source of funds for the LWCF is motorboat fuel taxes, proceeds from the sale of surplus Federal property, and a portion of the receipts from offshore oil and gas leasing. The LWCF enables the BLM to acquire non-Federal land having nationally significant resources at fair market value. The funds are used to process land exchanges or to purchase non-Federal lands or interests therein. These lands are acquired in accordance with the funding provided by Congress and the Bureau's land-use plans.

Funding from the LWCF in 1993 was used to acquire 16,643 acres of land through exchange and 38,238 acres of land or interests therein through purchase.

Recent accomplishments include the acquisition of 8,000 acres in Washington's Fishtrap Lake Management Unit, which will be jointly managed by the BLM, the Inland Northwest Wildlife Council, the Washington Department of Wildlife, Ducks Unlimited and Eastern Washington University; the withdrawal of 891,000 acres for the C.M. Russell Wildlife Refuge in Montana; and the sale of over 5,000 acres of public land for community expansion around Las Vegas, Nevada.

Withdrawals

The Secretary of the Interior has the authority under FLPMA to withdraw public land to protect resource values or to transfer it to another Federal agency. Also, lands that are currently withdrawn may be restored to allow appropriate uses that are permissible on public lands. The review of land withdrawals in Western States was authorized by FLPMA. As a result of this review, additional lands may be returned to public land status.

In 1993, the Secretary approved 22 withdrawals involving 934,625 acres of land. Twenty-two withdrawals were revoked, resulting in the return of 18,718 acres to the administration by the BLM.

Alaska Lands Program

The Alaska Statehood Act, the Native Claims Settlement Act of 1971 and other laws mandate the conveyance of selected Federal land to either the State of Alaska or Alaska Native corporations.

In fiscal year 1993, the BLM conveyed 1.1 million acres to the State of Alaska and 802,121 acres to Alaska Native corporations.

The BLM issued 557 certificates of allotment to individual Alaska Natives under provisions of the 1906 Native Allotment Act. This Act allows individuals to receive 160-acre parcels, and a total of 6,450 certificates have been issued to date.

The State of Alaska has received title to 87.7 million acres of its 104.4 million-acre entitlement and Alaska Native corporations have received title to 36 million acres of their 45 million-acre entitlement. The BLM is responsible for surveying these conveyed lands as part of the conveyance process. In 1993, 1,928 miles of survey were used to accommodate more than 2.7 million acres of State and Native Corporation selections and 55,664 acres of Native Allotments and other small parcel surveys.

Other Alaska Land Issues

Issues over management of Native hunting and fishing rights on Federal lands in Alaska remained unresolved in fiscal year 1993. Inconsistencies between State and Federal laws have created a rare situation where the Federal Government must manage animals, as well as habitat, on Federal land until the impasse is resolved.

The BLM is continuing to implement the land-use plans for Federal lands along the Dalton Highway. The Bureau finished construction of the first developed Federal campground along the highway, a facility that is 65 miles inside the Arctic Circle.

WILDERNESS

The BLM is one of four Federal agencies mandated by Congress to manage wilderness, defined in the Wilderness Act of 1964 as natural places where human influence is essentially unnoticeable and which offer "outstanding opportunities for solitude or primitive and unconfined recreation." The three other agencies are the U.S. Forest Service, the National Park Service, and the U.S. Fish and Wildlife Service.

In October 1991, the Secretary of the Interior recommended to the President that 9,761,490 acres of BLM public lands in 11 Western States be added to the National Wilderness Preservation System. He also recommended that 16,810,994 acres be released for uses other than wilderness.

The recommendation came after a 15-year study that had been the focus of the BLM's wilderness program since 1976. During that time, the BLM completed more than 90 separate studies and environmental impact statements to determine the wilderness potential of 860 separate Wilderness Study Areas (WSAs) encompassing more than 28 million acres. The agency finished all of the studies within the deadline established by Congress.

Once the studies were completed, the emphasis of the BLM's Wilderness Program shifted from wilderness study and reporting to management of WSAs and designated Wilderness Areas. The President has forwarded the BLM's recommendations to Congress. Until Congress either designates the WSAs as wilderness or releases them for multiple use, the BLM is required to administer them under an Interim Management Policy designed to preserve wilderness characteristics.

Wilderness Management Plans

The BLM manages 66 designated Wilderness Areas encompassing about 1.6 million acres of public land in nine States. The agency also manages 773 Wilderness Study Areas (WSAs) that encompass approximately 26.6 million acres of public lands in 12 States. Until Congress enacts legislation, the BLM must protect the wilderness character of each WSA. To accomplish this, the BLM has developed and implemented the *Interim Management Policy and Guidelines for Lands Under Wilderness Review.* By law, more activities are allowed in WSAs than in designated Wilderness Areas. Activities that would compromise wilderness suitability are prohibited. To ensure that wilderness suitability is maintained, the BLM monitors WSAs regularly.

Partnerships

The BLM has formed partnerships with such organizations as the Boy Scouts and the Sierra Club to assist with Interim Management of WSAs in California, Colorado, Idaho, New Mexico, and Nevada. Projects include fencing, trail maintenance, installation of wildlife water developments, and trash removal.

CULTURAL HERITAGE

The ruins of Esther Morris's cabin, first Justice of the Peace in South Pass City, Wyoming, and first woman appointed to public office in the nation...

The signature of William Clark, penned on a cliff wall while Clark was exploring the Northwest in the early 1800's...

Evidence from Arctic Alaska of a 12,000-year-old Paleoindian occupation of Beringia, the region adjacent to the Bering Strait...

The Presidio of Santa Cruz de Terrenate, a fort in southeastern Arizona used by the Spanish at the time of the American Revolution...

Defensive pueblo-like structures atop northwestern New Mexico mesas that the Navajos used for protection in the early 18th century...

The preserved skull of a new species of duckbilled dinosaur named Naashoibitosaurus, from New Mexico's Cretaceous period...

These remnants provide a dramatic record of life from the recent to the distant past. They all are located on public lands managed by the BLM. Many are of national and international significance. They are among the estimated four to five million archaeological, historic, and paleontological properties on the public lands. These sites are widely considered to constitute the Federal Government's largest and scientifically most important body of cultural and fossil resources.

The Division of Cultural Heritage, formed in 1992, is charged with protecting, enhancing, and interpreting the Nation's cultural and paleontological resources for the American public.

Cultural Resource Management

Prior to approval of proposed projects on any cultural properties listed on or eligible for the National Register of Historic Places, the BLM is required by Section 106 of the National Historic Preservation Act to consider project impacts. In 1993, the BLM's cultural resource program staff, consisting of approximately 175 cultural specialists, reviewed more than 7,300 land-use applications for any potential effect on cultural properties.

In addition, program staff members issued and administered approximately 475 cultural resource-use permits for survey, recordation, testing, or excavation on 400,000 acres of public lands. As a result, more than 6,200 new cultural properties were discovered and recorded, and more than 275 were excavated or underwent data recovery.

In 1993, the BLM's cultural resources program continued to spend approximately one-third of its operating budget to manage and protect more than 10,000 significant historic and archaeologic properties on the public lands. These include more than 3,250 properties on the National Register of Historic Places, 22 National Historic Landmarks, and five World Heritage properties. Management and protection activities included patrolling, monitoring, aerial surveillance, fencing, and installing interpretive and protective signs.

Museum Property

In 1993, the BLM continued to improve its ability to manage and preserve one of the largest collections of museum property administered by the Department of the Interior. The Bureau completed Scope of Collection Statements addressing how these materials will be managed by BLM offices. The statements also consider how the material can be used to advance the mission and goals of the BLM, particularly those related to heritage education and land management initiatives. An agency collection management plan identified critical areas that need to be strengthened to ensure the long-term preservation of BLM collections, and recommended a strategy for achieving this. Some personnel also received intensive training in the identification, management, and care of museum property to help them better manage collections held in both in-house facilities and non-Federal repositories.

In compliance with Section 6 of the Native American Graves Protection and Repatriation Act, the BLM completed a survey of its curated collections to locate Native American unassociated funerary objects, sacred objects and objects of cultural patrimony. The agency also took steps to comply with the inventory requirements of the act, due to be completed in 1995.

Heritage Education Program

In 1993, the BLM's Heritage Education Program focused on the implementation of *Project Archaeology*. This is a program for teachers and youth group leaders that provides hands-on activities to teach children about the science of archaeology and about stewardship of cultural resources. It supports the existing elementary and secondary school curriculum.
The messages of *Project Archaeology* are:

- The mystique of the past is an innovative way to capture students' interest in learning a wide range of interdisciplinary subjects.
- The traces of the past are important because they give children a sense of belonging to the land, an understanding of their place in history, and encouragement to pursue a more thoughtful path to the future.

Project Archaeology includes three components: educational materials, a delivery system of teacher training workshops, and on-going teacher support. *Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades* is the national text for *Project Archaeology*. Student supplements describing local cultural history are complete for Utah and Oregon. Other Western BLM States and a few Eastern States are under development.

Other highlights of the BLM's *Heritage Education Program* in FY 1993 include:

- The publication of two articles in the National Science Teachers Association's magazine *Science and Children* -- one on historic gold mining and another on the contemporary applications among New Mexico Indians of prehistoric agricultural techniques.
- The establishment of a partnership in Alaska with the Anchorage School District to expand and upgrade existing hands-on archaeological programs offered annually to the school district's sixth-grade pupils.
- The expansion and improvement of the basic interactive computer program on the prehistory of the Tewa Pueblos, developed in partnership with the Santa Fe Indian School.
- The development of four pre-packaged field trips and teaching guides on Wyoming heritage sites.

Adventures in the Past

In fiscal year 1993, the BLM shifted its *Adventures in the Past* program from regional events to a series of commemorations.

The BLM carried out two public symposia and a two-State tour that brought together Indian and non-Indian scholars and the public in a mutual exploration of how Spanish interaction with the land and with native peoples helped to shape the settlement of the American Southwest. These were accomplished through partnerships with the Government of Spain, the Universities of Arizona and New Mexico, the Arizona Humanities Council, the Art Students League of Denver, the U.S. Fish and Wildlife Service, the National Park Service and many others. The event was officially sponsored by the National Columbus Quincentenary Jubilee Commission and the Spain '92 Foundation.

The year also saw the BLM's commemoration of the sesquicentennial (150th) anniversary of the Oregon Trail. The BLM participated in local lectures and theatrical performances, trail preservation and interpretation, and in Living History Wagon Train treks along the trail in Idaho, Oregon, and Wyoming. The commemoration culminated with the BLM's hosting of the 1993 Annual Meeting of the Oregon-California Trails Association at BLM's National Historic Oregon Trail Interpretive Center at Flagstaff Hill, Oregon.

Paleontology

The public lands administered by the BLM constitute America's largest outdoor laboratory and classroom for the study of paleontology. Many of the earliest described, scientifically important and best-known fossils, especially vertebrate fossils of such dinosaurs as *apatosaurus, stegosaurus,* and *allosaurus*, were recovered from the public lands.

In 1993, four paleontologists were added to the BLM staffs of the paleontologically rich States of Colorado, New Mexico, Utah, and Wyoming. These individuals helped develop the Paleontological Resources Management Issue Paper, which will form the core of the BLM's new paleontology program.

Several field projects furthered program goals. In New Mexico, the BLM contracted with the Smithsonian Institution to initiate a study of fossil trackways in the Robledo Mountains. These trackways will provide insights into the environments and lifeways of Permian amphibians, reptiles, and a variety of invertebrates. As a part of this study, the Smithsonian and the New Mexico Museum of Natural History will jointly evaluate the scientific significance of the site and examine ways to protect and interpret the site. The BLM and the museum also entered into an Assistance Agreement for sharing of staff expertise in paleontology and curation services. Other joint projects included excavation of *seismosaurus*, the largest known land-dwelling animal, and the recovery of the skull of a new species of duck-billed dinosaurs from the Cretaceous period named *naashoibitosaurus*. The skull was unearthed in the Denazin Wilderness Area south of Farmington, New Mexico.

In Oregon, BLM made its first paleontological research appointment with Dr. James E. Martin of the South Dakota School of Mines and Technology. Dr. Martin excavated the first known Pleistocene period fossil prairie dog skeletons from the Pacific Northwest and developed a Statewide vertebrate paleontological resources management plan. The Oregon Museum of Science and Industry and the BLM completed the second year of a joint Volunteer Agreement providing members of the public with hands-on opportunities to learn about the science and techniques of paleontology through supervised activities.

In Wyoming, BLM co-sponsored the Washakie County Museum and Cultural Center's Third Annual Paleontology Symposium, which brings together paleontologists and the public to exchange information about fossils, on-going research and other common interests. The BLM and Fossil Butte National Monument began working toward the development of a partnership that will aid both in their management, protection and interpretation efforts of the unique 50 million year-old paleontological deposits near Kemmerer. These lacustrine deposits, and their associated biota, provide managers and scientists an unusually complete record for research into the functioning of an ancient ecological system. During 1993, the blockbuster movie "Jurassic Park," an adaptation of Michael Crichton's best-selling novel, captivated the American psyche and created "dinosaur mania." The BLM worked with Michael Crichton and the stars of the movie -- Laura Dern, Jeff Goldblum, and Sam Neill -- developed a series of radio and TV public service announcements to raise public awareness about America's paleontological legacy and to encourage citizens to protect these valuable resources.

Partnerships

The BLM's cultural heritage program had more than 100 challenge cost share/cooperative management agreements in 1993 with universities, other Federal, State and local entities, museums, civil and private organizations, and various constituent, "friends of," and professional societies. These arrangements expanded BLM's management capabilities in inventory, site recordation, site protection, excavation, aerial monitoring, site stabilization and fencing, interpretation, public awareness, education and training. These agreements generated $2.85 million in matching money, equipment, materials, and staff time on an initial BLM investment of approximately $790,000, or a better than 3.6 to 1 return.

In addition, almost 135,000 hours or 75 workyears of volunteer time were donated to the BLM's cultural heritage program in FY 1993. This has a value of roughly $1.9 million.

ENERGY AND MINERAL RESOURCES

The BLM regulates and manages the exploration, development and extraction of minerals and energy resources on more than 570 million acres of Federal and Native American land. This is done in coordination with other Federal agencies, State and local governments, industry groups and conservation organizations. In 1993, total receipts from BLM-managed energy and minerals operations exceeded $1 billion. Much of this money goes back to State and local governments. The BLM continued to boost oil productivity by reducing royalty rates on stripper wells on Federal lands in order to put marginal or otherwise uneconomical wells back into production. This will promote development and encourage the maximum recovery of oil.

Fluid Minerals Oil and Gas

The BLM's oil and gas leasing program is responsible for about four percent of domestic oil and five percent of domestic gas production. The BLM holds competitive lease sales to offer oil and gas parcels to the public through oral auctions. Parcels that are not sold at these auctions are then available for a two-year period for noncompetitive leasing. In 1993, the BLM conducted competitive lease sales in which 7,500 parcels covering 7.5 million acres were offered, with 2,600 parcels involving about 1.7 million acres receiving bids at the oral auctions. Bonus bids totaled $22.7 million.

Following the competitive sales, parcels covering about 5.6 million acres were available for noncompetitive leasing. As of September 30, 1993, there were 56,800 oil and gas leases in effect, covering about 41 million acres.

As of September 30, 1993, there were about 24,000 producing leases with 56,000 producing wells on lands under supervision. Of these, 4,200 leases were located on Native American lands. Together, the leases produced about 142 million barrels of oil and about 1.7 trillion cubic feet of gas in FY 1992. Federal leases generated about $600 million in royalties during FY 1993. Fifty percent (or in the case of Alaska, 90 percent) of this is returned to the State where the production occurs.

Payments also are distributed to American Indian tribes and individuals. The Minerals Management Service (MMS) collects and distributes these receipts. The BLM also has continued its program to identify all wells that are potentially draining Federal and Native American resources. During FY 1993, the drainage backlog was reduced from about 10,000 cases to about 7,300 cases. Most BLM offices were moving toward resolving the identified drainage situations. The backlog will be further reduced in 1994 and brought to a maintenance level by the end of 1995.

Inspection and Enforcement

In 1993, the BLM performed 56,000 inspection activities that resulted in the issuance of 9,144 notices of Incidents of noncompliance. Assessments were levied totaling $130,000.

Geothermal Energy

The BLM issues leases and regulates exploration and development of geothermal energy on the public lands. California is the world leader in geothermal energy production, and BLM-managed

lands contribute to that production. Geothermal energy produced in California accounts for 91 percent of total Federal production.

The BLM also conducts exploration and development of geothermal resources on public lands in Nevada (seven percent) and Utah (two percent).

One competitive lease was issued in FY 1993 covering 40 acres. Noncompetitive leases issued during FY 1993 totaled 45 covering 69,000 acres. Geothermal production generated over 1,000 megawatts (MW) of power in FY 1993 from Federal lands, and geothermal leases and associated operations generated about $19 million in bonus, rent and royalty payments to the Federal Government. At the end of FY 1993, a total of 545 leases were in effect, covering 800,000 acres.

Coal

Almost two billion tons of coal have been produced from Federal land in the 71 years since the Mineral Leasing Act was enacted. The market value of this coal is nearly $25 billion, on which royalties exceeding $1.4 billion have been paid to the U.S. Treasury. Since 1920, more than 482 million tons of coal have been produced from Native American lands. That coal was valued at more than $5.2 billion and generated more than $384 million in revenue for American Indian tribes and allottees. The BLM, which is the focal point for the Department of the Interior's Federal Coal Program, does its work in coordination with State and local governments, industry, conservation groups, and other agencies concerned with the management of Federal coal.

Approximately 60 percent of the total Western reserves of coal are found on Federal land. Most of these Federal coal reserves are concentrated in six Western States: Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming.

At the end of 1993 there were approximately 13.63 billion tons of recoverable reserves on 431 Federal coal leases covering 630,340 acres. The 131 producing Federal coal leases produced 246 million tons. This production represented almost 26 percent of the total United States production. During FY 1993, $258 million in Federal coal royalty revenues collected by the Department of the Interior. Coal production on Indian lands totaled about 40 million tons with royalties of over $64 million.

During FY 1993, the BLM conducted three coal lease sales covering approximately 1,200 acres and containing approximately 138 million tons of recoverable coal reserves. The sales generated total bonus bids of approximately $16 million. The BLM administers 39 approved logical mining units (LMUs). An LMU is a designated area from which coal can be developed as a unit and as part of a single mining operation, and may consist of Federal lease(s) only or of Federal lease(s) and non-Federal land (or Native American land); it must also be composed of contiguous lands, and cannot exceed 25,000 acres in size. In 1993, the BLM approved one LMU and was processing another 15 LMU applications. The BLM uses Solid Minerals Assistance Teams to implement national inspection and enforcement and production verification guidelines for coal and other solid minerals.

Solid Nonenergy Leasable Minerals

The BLM supervises activities of lessees and permittees who explore for, develop, and produce non-coal solid leasable minerals on Federal and Indian lands. More than 87 percent of the acreage and nearly 80 percent of the leases for solid nonenergy leasable minerals on Federal lands involve potassium, sodium and phosphate. At the end of FY 1993, there were 533 Federal leases comprising about 590,000 acres, plus 95 prospecting permits covering about 90,000 acres. In

addition, there were 16 preference right lease applications covering 28,000 acres. The combined production of solid nonenergy leasable mineral commodities from Federal and Native American land was valued at over $750 million. More than $29 million in royalty revenues was collected from Federal lands.

Mineral Materials

Mineral materials are salable minerals, such as sand, gravel, stone or clay, which are generally used in construction or building projects. The BLM disposes of mineral materials either by sale to the general public or by free-use permit to qualified government or nonprofit organizations. In FY 1993, about nine million cubic yards of mineral materials, valued at approximately $17.6 million, were produced from 2,400 sales and free-use permits.

Mining Law

Approximately 40,000 new claims were accepted for recording by the BLM during FY 1993, compared to 80,000 for the previous year. Nine patents were issued conveying title to lode, placer and millsite claims, for a total of 1,913 acres.

Legislation enacted during 1993 requires payment of a $100 per claim annual maintenance fee, through 1998, and a $25 location fee whenever a new claim is filed. In 1993, claimants -- except for those holding 10 or fewer claims and meeting certain conditions -- were required to pay a $100 fee for 1993 and 1994 ($200 total) in lieu of performing assessment work. The number of active claims fell from 760,000 in March 1993 to about 300,000 claims by September 1993.

FIRE AND LAW ENFORCEMENT

The BLM's national Fire, Aviation and Law Enforcement programs are headquartered at the National Interagency Fire Center (NIFC) in Boise, Idaho.

Fire and Aviation Management

Wildland fire, which can cause enormous damage, also plays a vital role in nature. In recognition of both the destructive power and natural role of wildland fire, the BLM has updated its District and State fire plans to ensure that fire management meets the agency's land management goals.

Fire management is one component of the ecological, economic and social assessment of forestland that was prompted by the President's 1993 Forest Summit. As a result, the BLM participated in developing new interagency standards and guidelines to address the role of fire in future management of the Nation's Northwestern forests.

Prescribed Fire

In 1993, 489 prescribed fires were carried out to treat 60,500 acres. These fires are used as a tool to meet the needs of various resource programs. The BLM developed educational materials to explain the difference between "good" and "bad" fires. These materials show that fire can be a

critical element in maintaining land health, but that unplanned and uncontrolled fires, like the 1993 wildfires in Southern California, can have disastrous consequences.

Wildfires

The 1993 fire season was one of the quietest in decades. A total of 2,067 fires burned 754,278 acres on BLM lands. Nonetheless, abundant early moisture and extreme high temperatures in the Southwest resulted in a record number of wildfires there. In Arizona and New Mexico, 263 fires burned 85,087 acres, compared to their 10-year average of 156 fires and 41,504 acres. An invasion of non-native annual grasses and good growing conditions in 1993 allowed fires to burn where historically there had not been enough fuel to carry a fire. Many plants, including Saguaro and Barrel cactus and Joshua trees, were killed. Several land areas were permanently altered by fires.

Prevention

To get the maximum use out of fire prevention resources, the BLM initiated a wildfire prevention analysis and planning project in 1993. The fire-prevention focus has shifted from trying to prevent all human-caused fires to concentrating on priority areas where wildfires will cause the greatest damage to property and natural resources.

Equipment Development

In 1993, prototypes of a new generation of wildland fire engines were created and tested. The new engines are designed to better meet fire suppression needs created by the rapidly growing wildland-urban interface problem, where homes in and adjacent to the wildlands face increased risk from wildfires.

Aviation Management

Aviation Management is focusing on streamlining and improving interagency fire aviation operations. This was partly accomplished in 1993 by co-locating the BLM's National Aviation and Fire Staff at NIFC with such cooperators as the Department of the Interior's Office of Aircraft Services and the Department of Agriculture's Forest Service.

Other major aviation efforts in 1993 included compliance with the Office of Management and Budget's directives to eliminate waste, fraud, and abuse. The staff revised and streamlined the aviation management policy system and pioneered a safety system using satellites to track aircraft on cross-country flights.

The aviation management staff supported new initiatives to reduce the impact of aircraft overflights on wilderness areas and initiated an aerial photo sensing project supporting ecosystem management. BLM aircraft are expected to play an increasing role in support of resource and wildlife management.

BLM aircraft flew 19,000 hours in support of fire suppression and resource management projects in 1993 at a cost of $17 million. This activity generally occurred in remote areas of the Western United States and Alaska. It supported rural communities by providing about 500 job opportunities in the aviation industry.

Law Enforcement

The BLM employs law enforcement officers to protect resources, enforce laws and regulations, and protect employees and visitors. The agency has one uniformed ranger for every 1.6 million acres of public land. BLM rangers and special agents investigate criminal violations and enforce numerous resource laws. These laws include the Archaeological Resources Protection Act, the Wild Horse and Burro Protection Act, the Sikes Act, the National Trails Act, the National Land and Water Conservation Fund, and the Wild and Scenic Rivers Act.

In 1993, BLM rangers issued more than 4,000 citations for misdemeanor violations, such as off-road vehicle use in closed areas, firearms violations, illegal taking of wildlife, firewood and forest product theft, trash dumping and violations affecting public safety.

Rangers also investigated and apprehended 76 wild horse adopters who had mistreated horses acquired through the BLM's wild horse adoption program.

In 1993, BLM law enforcement personnel formed task forces with other Federal, State and local law enforcement agencies to conduct several complex interagency investigations. These efforts resulted in a number of felony convictions and plea bargains and the seizure of illegally obtained archaeological artifacts valued at more than $275,000.

BLM special agents and rangers joined with other law enforcement personnel in 1993 to eradicate illicit drug production and trafficking from the public lands. They seized illegal drugs, with a street value of more than $261 million, in California, Oregon, Arizona and other Western States. BLM law enforcement personnel seized 49,149 marijuana plants, 3,795 pounds of cocaine and 15 pounds of methamphetamine, along with $50,000 in cash, 44 firearms and 19 vehicles. They made 155 drug-related arrests in connection with intra-agency and interagency investigations.

CADASTRAL SURVEY

Cadastral surveyors establish the legal boundaries on land owned by the United States. Reimbursable survey services are provided to other Federal agencies as well as to State and local governments. These services are coordinated through the Interagency Cadastral Coordination Council.

The BLM surveyors also produce the survey plats and field notes used in the creation of the thematic data layer of land ownership in the BLM's Automated Land and Mineral Record System (ALMRS)/Modernization Project. The 1993 accomplishments are as follows:

FIELD WORK

Original Surveys	1,364.3 miles
Resurveys	5,541.0 miles
Special Surveys	938.4 miles
Monuments Set	14,772

OFFICE WORK

Original Surveys	1,500,059.9 acres
Resurveys	691,655.6 acres
Special Surveys	57,062.0 acres
Lines Surveyed/Resurveyed	9,435.5 miles

PLATS ACCEPTED

Field Surveys	1,021
Supplemental Plats	152
Protraction Diagrams Approved	8

MINERAL SURVEYS

Number of Surveys	49
Lode Claims	255
Placer Claims	68
Millsite Claims	57

Strategic Plan

In 1993, the Division of Cadastral Survey prepared a strategic plan for managing the Public Land Survey System. The plan sets forth long-range goals for the BLM's Public Land Survey Program and strategies to reach those goals. The plan identifies six goals: customer service, product enhancement, community enrichment, program development, diversity, and education.

Training

In FY 1993, a needs analysis was conducted on cadastral training. As a result of this study, a cadastral training coordinator position was established at the BLM's Training Center in Phoenix, Arizona. The focus of the position is to expand training opportunities for all Federal land surveyors and to provide land managers and other resource specialists with a fundamental understanding of survey systems and their importance to sustainable development.

Geographic Coordinate Data Base

Cadastral survey collected spatial data both in-house and by contract for the Public Land Survey System through a bureauwide project called the Geographic Coordinate Data Base. In FY 1993, data collection continued in the States of Arizona, California, Idaho, Montana, Nevada, New Mexico, Oregon, Wyoming, and Utah. The Colorado State Office completed its data collection under contract. The BLM worked to improve standardization and to form partnerships with local governments.

ENGINEERING

The BLM engineering program oversees the design, construction, and maintenance of buildings; roads; recreation sites; and other facilities that support the agency's programs. In FY 1993, the BLM completed designs for 39 buildings, 46 recreation sites, 34 miles of road, 56 miles of trail, and four bridges. The BLM is constructing 44 buildings, 25 recreation sites, 11 miles of road, 55 mile of trail, and two bridges. Maintenance was completed or is underway on 1,691 buildings, 867 recreation sites, 12,770 miles of road, 930 miles of trail, and 150 bridges.

Increased maintenance funding and the Facility Inventory and Maintenance Management System have enabled the BLM to improve the level of scheduled maintenance, in addition to meeting the need for some important corrective maintenance and replacement.

HAZARDOUS MATERIALS MANAGEMENT

Protection of public health and the environment is the first among the goals of the Hazardous Materials Management program, which in 1993 continued its preventative approach to pollution management. In addition to managing cleanups on the public lands, the BLM is examining how the Bureau and land users operate in order to develop education and outreach programs.

The BLM's comprehensive approach to waste management is based on four principles: (1) pollution prevention, (2) waste reduction, (3) waste management, and (4) cleanup and restoration.

This work is carried out by a multidisciplinary staff that includes a program leader in each State Office, a coordinator in every District Office and coordinators in a number of Resource Area Offices. In addition, the BLM's Service Center in Denver hosts a cadre of specialists who bring technical expertise to projects throughout the agency.

A headquarters staff in Washington, D.C., provides policy and direction for the program. The BLM's Training Center in Phoenix offers hazardous materials management training.

In-house training and targeted waste minimization programs throughout the BLM have reduced the solid and hazardous waste generated at BLM facilities. Similar outreach efforts focus on public land users and land-use authorizations. In order to control contingent liability, the BLM carefully selects and limits the number of disposal facilities to which it sends hazardous waste. In 1993, the BLM also instituted and tested an environmental compliance auditing procedure that, over time, will involve regular inspections of all BLM facilities.

The hazardous materials management program is expanding partnerships and coordination within the BLM and beyond to identify potential hazard sites on public lands, conduct risk assessments, and accomplish cleanup and remediation. In 1993, the BLM responded to 170 hazardous waste emergencies on public lands, initiated cleanup and remediation at 40 new sites, and continued ongoing remediation at 28 sites. In addition, the BLM conducted cleanup and remediation at 95 sites in cooperation with public land users who are potentially responsible parties, and at 37 sites in cooperation with State agencies.

The BLM developed a standardized statement of work for its Hazardous Materials Management program's emergency response requirements in 1993. This includes examination of the site where a hazardous substance release has occurred or is expected, sample collection and analysis and hazardous materials removal, transportation and disposal. The BLM has used the standardized statement of work to award competitive contracts for emergency response requirements in most BLM States. The contracts provide immediate response and support at competitive prices for several years to cover these emergencies.

PLANNING

BLM is mandated under FLPMA to make plans to protect public lands against misuse and ensure their long-term productivity. The most important information in those plans -- known as Resource Management Plans (RMPs) -- is the description of what will be done to implement, maintain and monitor land-use strategies. Every BLM State is involved in writing RMPs.

Two special aspects of the BLM's planning process are the method of combining RMPs with environmental impact statements, and the emphasis on public participation and cooperation with other government agencies. Environmental impact statements, as required by the National Environmental Policy Act, provide a framework for analysis of the best scientific, social, and economic data. Public participation helps ensure that the BLM reflects the values of the American people in making land-planning and land-use decisions.

In fiscal 1993, the BLM emphasized plan implementation, monitoring and maintenance over the preparation of new RMPs. The Bureau completed seven RMPs in 1993 and continued work on 36 others. In all, the BLM had completed 79 RMPs as of 1993, with 33 remaining to be done.

Areas of Critical Environmental Concern

Areas of Critical Environmental Concern (ACECs) are designated to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources or other natural systems or processes; or to identify natural hazards. Natural areas also may be designated to maintain natural diversity and provide for scientific research.

ACECs are identified and designated through the BLM's planning system. Appropriate management actions for each area are developed and tailored to reflect site-specific resources and local circumstances. Protection of the identified values is ensured whenever subsequent uses are undertaken or authorized.

During 1993, 14 new ACECs were designated. This raised the total number of ACECs to 539, encompassing 8.7 million acres.

ADMINISTRATIVE SERVICES

Procurement

In 1993, the BLM spent $147.7 million in goods and services that range from campground materials to office equipment. This includes approximately $80.3 million for 2,160 contract actions and $67.4 million for 93,760 purchases of $25,000 or less.

The BLM was the largest user of the U.S. Government credit (purchase) card in the Department of the Interior in 1993, with over 1,500 card holders making 41,200 purchases totaling nearly $8 million. This accounted for 45 percent of the total credit card sales in the Department. This technique reduces paperwork by eliminating the preparation and distribution of purchase orders, permits over-the-counter transactions without having to prepare requisitions, and guarantees fast payment. Because of its efficiency, the National Performance Review team recommended more governmental use of the card.

The BLM has developed a self-study training program for its 1,500 non-procurement card holders. The course takes about three hours to complete and assures that non-procurement cardholders have sufficient knowledge to use the card wisely.

The BLM participated as a member of teams that developed the Interior Department Electronic

Acquisition System (IDEAS), which automates the contracting and purchasing processes, including requisitions, solicitations, awards, and administration. IDEAS will also interface with the Federal Financial System for commitment accounting, obligation, and payment. It will allow purchasers to monitor the status of their procurements.

SACONS Federal, developed by CACI, Inc., is the commercial off-the-shelf software that will be used for IDEAS. The BLM is scheduled for deployment of IDEAS beginning in FY 1996.

The BLM met FY 1993 goals negotiated with the Department for procurement awards in various categories in the Business and Economic Development Program. The agency awarded nearly 11 percent to minority business concerns, and nearly five percent to women-owned business concerns in FY 1993.

Under a delegation of authority from the General Services Administration (GSA), the BLM manages more than 100 facility leases nationwide. The BLM obtained an increased delegation of authority from the GSA from a five-year term to a 10-year term. The longer term increases competition, makes it easier for lessors to obtain financing, and reduces lease costs.

The Bureau is continually increasing its Indian Self-Determination and Education Assistance Act contracts for its cadastral survey program in Alaska.

Property Management

The Property Management program focused on extending more capabilities to field offices in 1993. The BLM initiated a changeover to a "Custodial Officer" concept of accountability for personal property. Acquisitions of vehicles and heavy equipment from excess sources were delegated to State Directors with the capability of redelegation to Accountable Officers. The approval of "Home-to-Work" vehicle-use authorizations for law enforcement positions and employees in certain other job classifications was delegated to State Directors.

A pilot study of the GSA's Foundation Information for Real Property Management (FIRM) system in a personal computer environment will evaluate FIRM as a potential BLM Real Property System.

Administrative Training

The BLM developed and presented an administrative training program in 1993 in order to provide basic training and awareness to field administrative personnel in 10 core administrative functions, including property management, travel, personnel, and records. This training introduced field employees to the interrelationships among administrative functions and increased their capability to provide back-up to various functions.

Information Resources Management

The BLM has long been a leader in providing land information to a multitude of users. The agency maintains over a billion records on resources and land uses -- more than any other Federal agency -- and annually receives about six million requests for information.

In the new age of information technology, the BLM is keeping pace through a number of modern automation projects designed to provide timely access to land data for a growing clientele, many of whom depend on the information to make decisions on competing uses of the public lands. These include not only BLM managers, but other government agencies, Congress, private organizations, and the general public.

The BLM's automation projects are generally referred to as Automation, Information Resources Management, and Modernization projects or AIM.

Implementing current AIM projects will:

- Preserve disintegrating public land records. The BLM houses all public land records for the Federal government, some dating back to the American Revolution.
- Make storing, retrieving and updating land records more efficient.
- Speed processing of applications for leases and permits to use public lands.
- Speed responses to public inquiries about public lands, such as questions on land ownership, minerals availability, and renewable resources.
- Increase access to all BLM records for more individuals.
- Assist in decisionmaking by providing more timely information and enable the analysis of a wider range of alternatives on which to base environmentally sound land-use decisions.

AIM is not limited to developing computer hardware and software. It also addresses developing and improving manual processes. AIM directly involves users who initiate, develop, and test projects. No system is accepted until a team of users has confirmed that it meets their criteria. To date, 11 AIM projects have been approved for development bureauwide, and several others have been implemented statewide and districtwide.

Automated Land and Mineral Records System

The focus of the BLM's automation efforts is the Automated Land and Mineral Records System (ALMRS), which combines land status and authorizations, including property rights and permits, with data on legal land parcels.

The BLM achieved a major milestone in this project in 1993 when it awarded a 10-year contract to complete the installation of the ALMRS/Modernization platform. Initial testing of the new hardware and software, set for 1994, will be conducted in the Washington Office, the Denver Service Center, and in New Mexico. Following acceptance, installation will continue during 1994 in California, the Eastern States, Montana, and Nevada. The remainder of the BLM offices will acquire the new capabilities in 1995. In total, 256 offices will receive the ALMRS/Modernization platform.

On April 7, 1993, the BLM awarded the ALMRS/Modernization contract to Computer Sciences Corporation. The contract provides Automated Data Processing hardware, commercial off-the-shelf software, including associated operating system software, Database Management System, and Geographic Information System (GIS) capabilities, re-engineer and rehost services and support, systems and hardware/software maintenance support.

Field offices have evaluated the requirements of the program and have begun upgrading their electrical wiring needs in anticipation of ALMRS/Modernization.

The BLM will achieve substantial savings as the agency reduces its subscriptions to consolidated telephone services in favor of using FTS2000 and the departmentwide data communication network (DOINET).

Sharing Information

The BLM strives to increase capabilities in data sharing in order to avoid duplication and increase efficiency throughout the Federal Government. Of particular note is the BLM's role on the Interior Geographic Data Committee and the Federal Geographic Data Committee (FGDC), both major

efforts to establish standards for commonly used base data. The BLM continues to serve as the FGDC's lead for the Cadastral Survey Subcommittee.

The National Performance Review, the Office of Management and Budget (OMB) and other government initiatives or offices have called on Federal agencies not only to provide the public with information in a timely and courteous manner, but also to seek customers and work to meet their needs.

The new modernization hardware and software will provide the capabilities to do that by providing greater access to BLM's electronic data. Future efforts will allow easier exchange of alpha-numeric and spatial data between Federal agencies and State and local government.

Through automation and data sharing, the BLM will be able to continue to carry out its mission into the 21st century despite the steady increase of requests for information and the competing demands for the use of the public lands.

PERSONNEL MANAGEMENT

The BLM employed 11,400 permanent, seasonal and temporary workers in 1993. BLM employees represent diverse skills and technical backgrounds ranging from petroleum engineers to range conservationists, archaeologists to computer specialists. The Personnel Management Program is directed by the Washington Office and administered through 15 Servicing Personnel Offices located in each of the BLM's State Offices, the Service Center in Denver, the National Interagency Fire Center in Boise and the Washington Headquarters. Responsibilities of the Personnel Management Office include recruitment, internal promotion and placement of employees, position classification and pay administration, employee relations, labor-management relations, employee benefits, security management, employee recognition and performance management.

The BLM held a Human Resources Conference in 1993 to promote the goals of the *Strategic Plan for Human Resources Management.* Themes were: valuing diversity within the organizational culture, promoting the development of leadership, and setting high standards for customer service.

Within this framework, the BLM also looked at opportunities to streamline and simplify personnel management through a variety of proposed administrative changes, such as standardizing of position descriptions and performance elements and standards. In addition, the agency provided human resource professionals with information on new techniques in Alternative Dispute Resolution and Workers Compensation Management.

The BLM placed special emphasis on RAPS -- the Resource Apprenticeship Program for Students. This program supports President Clinton's proposal to bring business, labor and education leaders together to develop a national apprenticeship style system for American youth. BLM has taken the lead on this effort by establishing a cooperative venture among Federal, State and private agencies.

Training and Employee Development

The BLM offers training to employees throughout their careers to identify and develop a reserve of technical expertise and potential leaders.

The agency invests in development of leadership skills through a variety of programs: the Senior Executive Service Candidate Development Program, the Executive Potential Program, the Managers Development Program, the Advanced Manager Development Program, the Women's

Executive Leadership Program, and the Management and Leadership Workshops. The BLM also provides training for firefighters, law enforcement agents, and resource professionals. Training on the job is supplemented by professional courses at the National Training Center in Phoenix, Arizona, and the National Interagency Fire Center in Boise, Idaho.

The BLM expanded its training opportunities in 1993 through its partnership with Historically Black Colleges and Universities and with the Hispanic Association of Colleges and Universities, as well as with other colleges and universities.

EQUAL EMPLOYMENT OPPORTUNITY

In fiscal 1993, the BLM's Equal Employment Opportunity Program undertook wide-ranging outreach and targeted recruitment initiatives to attract young people to natural resources management and the agriculture disciplines. Additionally, through expanded partnerships with Historically Black Colleges and Universities (HBCU), the Hispanic Association of Colleges and Universities (HACU), and Native American Colleges and Universities (NACU), the BLM contributed to natural resource and environmental education efforts.

The BLM signed partnership agreements or memorandums of understanding (MOUs) with a number of HBCUs. These included Alabama A&M University, the University of Arkansas at Pine Bluff, Bennett (North Carolina) College, Florida A&M University, Jackson (Mississippi) State University and South Carolina State University.

During FY 1993, the agency's Bureau Management Team held one of its quarterly meetings in Jackson, Mississippi, in conjunction with a meeting of selected HBCU Presidents. The group discussed opportunities for increased BLM-HBCU partnerships. The BLM continued to use the Cooperative Education Program in 1993 as an outreach and recruitment mechanism to provide college students with opportunities to gain experience by working for the agency. The Bureau employed cooperative education students from a wide range of institutions, including a variety of HBCUs and HACUs. At the close of fiscal year 1993, approximately 250 students were enrolled as cooperative education students throughout the BLM.

During 1993, the BLM's permanent employee workforce experienced a net decline of 192 employees (1.9%). Against this backdrop, minority employment increased by nine, while the employment of non-minority women decreased by 32.

Below are examples of actions and activities with minority groups:

- BLM professionals taught two courses developed by the BLM for the Natural Resources curriculum at Wayne County Community College in Detroit, Michigan.
- A BLM professional served on the faculty of Howard University in Washington, D.C., via an Intergovernmental Personnel Act (IPA) assignment.
- A BLM employee served as Chairperson for the University of Arkansas at Pine Bluff's Youth Motivational Task Force activities.
- BLM employees participated in a wide variety of school and university career days and recruitment visits at targeted HACU institutions, including Eastern New Mexico University, New Mexico Highlands University, New Mexico State University, the University of New Mexico and the University of Texas at El Paso.
- BLM employees participated in the Santa Fe (New Mexico) Career Fair as part of a strategy to acquaint junior high school students with information about land management and career opportunities in natural resources career fields.

- BLM implemented an MOU with Treasure Valley Community College (TVCC), Ontario, Oregon, a school with a large Hispanic enrollment that offers an Associate Degree in Natural Resources.
- BLM employees served as TVCC instructors, and TVCC offered BLM employees college level courses in natural resources management on-site at the BLM National Interagency Fire Center, Boise, Idaho.
- The BLM Field Committee held a quarterly meeting in conjunction with the annual IMAGE Conference and participated in a joint meeting with the IMAGE Executive Board.
- As part of the NACU initiative, BLM employees visited the Southwest Indian Polytechnical Institute (Albuquerque, New Mexico), the Northern Idaho Nez Perce Indian Reservation (Lapwai, Idaho) and Haskell Indian University (Lawrence, Kansas).
- BLM employees served on Haskell's Natural Resources Advisory Board and implemented a 12-week project involving students from Pryor High School, located on the Crow Indian Reservation (Pryor, Montana), to enable the students to interact with BLM natural resource specialists. The students participated in demonstrations and hands-on activities designed to enhance the students' skills and to encourage them to pursue educational opportunities in natural resources disciplines.

FINANCIAL MANAGEMENT

The BLM's Division of Financial Management in the Washington Office, and its operating counterpart at the Denver Service Center, provide accounting and financial management services. Policy guidance and staff assistance are provided to BLM program management so that decisions can be made within the context of governing regulations and with an awareness of any financial impact.

The Division also provides accounting services for annual and permanent appropriations that provide funds to State and local governments in which Federal land resources are located, either as payments in lieu of taxes, or as shared revenues from the sale, leasing, and disposition of resource commodities. In addition, the BLM is a primary collector of Federal revenues for use of resources on public lands.

Federal Financial System

The Federal Financial System (FFS) is part of a Governmentwide effort to improve and standardize financial systems, operations, and information throughout Federal agencies. The BLM, which implemented FFS in 1990, concentrated in 1993 on improving reporting capabilities and access to the system for non-standard reports.

Financial Report and Statements

In 1993, the BLM prepared a financial report and statements, as required by the Chief Financial Officers Act.

Audit of Transportation Bills

During 1993, the BLM instituted a pre-payment audit of transportation bills through use of an independent contractor. This resulted in savings to the BLM of over $25,000.

Governmentwide Accounting Principles

The first financial recommendation of the Vice-President's *Report on Creating a Government That Works Better and Costs Less* (National Performance Review) was rapid completion of Federal Accounting Standards. The BLM participated in this process throughout 1993, providing support and recommendations to the Federal Accounting Standards Advisory Board. As the agency managing the most Federal land, the BLM has played a leadership role in developing an appropriate standard for valuing and reporting on public lands and related property assets.

Revenues and Receipts

Gross receipts from the lease, use, and sale of public land and resources totaled approximately $244 million in FY 1993. (Energy and minerals operations on BLM-managed lands generated over $1 billion in FY 1993, but the bulk of those receipts are administered by the Minerals Management Service.) Of the $244 million collected by the BLM in FY 1993, about $85 million was returned to the States; $17 million was transferred to the Reclamation Fund; $10 million was transferred to the Range Improvement Fund; and the remaining $132 million was transferred to the United States Treasury.

Revenue Sharing

Taylor Grazing Act revenues are distributed according to the type of land generating them. Of the fees collected within livestock grazing districts, 12.5 percent are distributed to the respective State for expenditures to benefit the counties generating these grazing receipts. Grazing revenues generated on public lands outside the grazing districts are shared equally with the State.

Land sale revenues generated in Nevada under the Burton-Santini Act are collected throughout the year and distributed on an annual basis. This Act authorizes the allocation of 10 percent of gross revenues back to Clark County or the municipality in which these revenues are generated. Five percent is paid to the State of Nevada. The remaining revenues are deposited into the Land and Water Conservation Fund for the purchase of environmentally sensitive land in the Lake Tahoe Basin.

Payments in Lieu of Taxes

Units of general local government within Western States are the principal beneficiaries of the Payments in Lieu of Taxes (PILT) Act. The PILT program provides Federal payments to those areas where public and other entitlement lands are in Federal ownership and, therefore, exempt from local property taxes. Serving as a supplement to revenue sharing funds, payments in lieu of taxes are made directly to units of general local government and may be used for any governmental purpose. Since the payments in lieu of taxes program started in 1977, more than $1 billion has been paid to local governments; $103 million of that amount was paid in FY 1993.

Appropriations and Expenditures

BLM programs are funded through six major operating appropriations, several minor permanent and trust appropriations, and reimbursements from other Federal agencies for work performed on their behalf. In addition, the BLM budget includes one annual appropriation and numerous permanent appropriations that provide funds to State and local governments in which Federal land and resources are located, either as payments-in-lieu-of-taxes or as shared revenues from the sale, leasing and disposition of resource commodities.

BLM Funding 1990-1994
(in millions of dollars)

	FY 1990 actual	FY 1991 actual	FY 1992 actual	FY 1993 actual	FY 1994 estimate
BLM Operating Appropriations*	$725.9	722.5	737.7	744.1	783.9
Payments-in-Lieu of-Taxes	$105.0	104.4	103.7	104.1	104.1
Permanent Payments to States	$120.8	118.5	100.3	80.9	83.6
Other Miscellaneous	$169.5**	19.6	19.4	22.3	24.3
TOTALS:	**$1,121.2**	**965.0**	**961.1**	**951.4**	**995.9**

* The FY 1991, FY 1992, FY 1993, and FY 1994 Operating Appropriations amounts include only BLM's firefighting program.

** The FY 1990 Other Miscellaneous category includes $150.8 million appropriated as permanent includes $150.8 million appropriated as permanent budget authority for the Cook Inlet Region, Inc. (CIRI) Property Account, established to settle CIRI's land entitlement issues in Alaska. The BLM is responsible for monitoring and administering this account.

Funding, Obligations, and Work Years by Program, FY 1992-1994

Management of Lands and Resources

Program	FY 1992 Actual	FY 1993 Actual	FY 1994 Enacted
Energy and Minerals (includes oil and gas, coal, etc.)			
Appropriation (000's)	80,354	69,736	70,876
Obligations (000's)	67,357	69,534	N.A.
Work Years (000's)	1,243	1,289	N.A.
Lands and Realty Management			
Appropriation (000's)	40,516	40,230	42,931
Obligations (000's)	39,878	40,160	N.A.
Work Years (000's)	763	759	N.A.
Renewable Resource Management **Forest Management (except Western Oregon)**			
Appropriation (000's)	7,080	6,737	7,007
Obligations (000's)	6,905	6,666	N.A.
Work Years (000's)	118	113	N.A.
Wild Horse and Burro Management			
Appropriation (000's)	14,604	16,020	16,703
Obligations (000's)	14,575	15,927	N.A.
Work Years (000's)	151	172	N.A.
Rangeland Management			
Appropriation (000's)	40,853	42,530	46,749
Obligations (000's)	40,510	42,531	N.A.
Work Years (000's)	776	808	N.A.
Soil, Water and Air Management			
Appropriation (000's)	18,235	19,592	18,796
Obligations (000's)	17,949	19,564	N.A.
Work Years (000's)	244	296	N.A.

Funding, Obligations, and Work Years by Program, FY 1992-1994 [continued]

Program	FY 1992 Actual	FY 1993 Actual	FY 1994 Enacted
Wildlife Habitat and Fisheries Management			
Appropriation (000's)	34,137	36,565	47,531
Obligations (000's)	33,800	36,643	N.A.
Work Years (000's)	530	597	N.A.
Recreation Management (includes Recreation, Cultural and Wilderness Resource Management)			
Appropriation (000's)	45,075	46,722	49,903
Obligations (000's)	44,885	46,680	N.A.
Work Years (000's)	766	806	N.A.
Recreation Operating Fees			
Appropriation (000's)	1,382	1,438	1,462
Obligations (000's)	1,565*	1,519*	N.A.
Work Years (000's)	30	29	N.A.
* Includes funds carried over from previous years			
Resource Management Planning			
Appropriation (000's)	9,705	9,870	9,834
Obligations (000's)	9,694	9,792	N.A.
Work Years (000's)	160	152	N.A.
Information and Resource Data Management (includes Information Systems Operation and Maintenance, ALMRS and Resource Data Acquisition)			
Appropriation (000's)	46,048	55,741	90,466
Obligations (000's)	43,403	55,995	N.A.
Work Years (000's)	584	570	N.A.

Funding, Obligations, and Work Years By Program, FY 1992-1994 [continued]

Program	FY 1992 Actual	FY 1993 Actual	FY 1994 Enacted
Resource Protection and Maintenance (includes Alaska Cadastral Surveys, Other States' Cadastral Surveys, Resource Protection and Law Enforcement, Facilities Maintenance, and Hazardous Materials Management)			
Appropriation (000's)	91,776	95,514	93,395
Obligations (000's)	90,436	95,174	N.A.
Work Years (000's)	1,050	1,166	N.A.
General Administration			
Appropriation (000's)	102,584	102,051	104,207
Obligations (000's)	102,440	101,896	N.A.
Work Years (000's)	1,064	1,058	N.A.
Emergency Operations (includes Grasshopper, Mormon Cricket Control and Emergency Damage Repair)			
Appropriation (000's)	N.A.	0	0
Obligations (000's)	223	218	N.A.
Work Years (000's)	4	3	N.A.
Use of Prior Year Funds		(2,500)	
Management of Lands and Resources -- Totals			
Appropriation (000's)	**532,349**	**542,746**	**599,860**
Obligations (000's)	**513,620**	**542,299**	**N.A.**
Work Years (000's)	**7,483**	**7,820**	**N.A.**

Funding, Obligations, and Work Years by Program, FY 1992-1994

DEPARTMENT OF THE INTERIOR FIRE PROTECTION

Program	FY 1992 Actual	FY 1993 Actual	FY 1994 Enacted
Fire Protection -- BLM Only			
Fire Management and Presuppression			
Appropriation (000's)	65,864	64,674	64,332
Obligations (000's)	65,305*	68,281*	N.A.
Work Years (000's)	1,804	1,246**	N.A.
Fire Protection -- Departmentwide (includes BLM, National Park Service, Bureau of Indian Affairs and Fish and Wildlife Service)			
Appropriation (000's)	120,473***	118,296	117,143
Obligations (000's)	122,427*	128,441*	N.A.
Work Years (000's)	2,000	2,258**	N.A.

* Includes funds carried over from previous years
** Work years include overtime
*** Includes a $4.9 million net transfer from other accounts

EMERGENCY DEPARTMENT OF THE INTERIOR FIREFIGHTING FUND

Program	FY 1992 Actual	FY 1993 Actual	FY 1994 Enacted
Emergency Operations -- BLM Only			
Appropriation (000's)	60,947	72,449	73,353
Obligations (000's)	55,754	40,765	N.A.
Work Years (000's)	159	445**	N.A.
Emergency Operations -- Departmentwide (includes BLM, National Park Service, Bureau of Indian Affairs and Fish and Wildlife Service)			
Appropriation (000's)	99,598	112,674	116,674
Obligations (000's)	91,108	62,367	N.A.
Work Years (000's)	335	602**	N.A.

** Work years include overtime

	FY 1992 Actual	FY 1993 Actual	FY 1994 Enacted
Emergency Transfers			
Transfers (000's)	(5,000)	N.A.	N.A.
Construction and Access			
Appropriation (000's)	14,138	15,676	10,467
Obligations (000's)	8,708	14,267	N.A.
Work Years (000's)	42	60	N.A.
Payments-in-Lieu-of-Taxes			
Appropriation (000's)	103,677	104,108	104,108
Obligations (000's)	99,973	103,787	N.A.
Work Years (000's)	2	3	N.A.

OREGON AND CALIFORNIA (O&C) GRANT LANDS

Program

Western Oregon Resources Management (includes Forest Management and Reforestation/Development and other Resource Management)			
Appropriation (000's)	79,449	71,600	73,637
Obligations (000's)	78,651	76,603	N.A.
Work Years (000's)	1,175	1,188	N.A.
Western Oregon Information and Resource Data Systems			
Appropriation (000's)	2,466	2,460	2,650
Obligations (000's)	2,502	2,460	N.A.
Work Years (000's)	13	14	N.A.
Western Oregon Facilities Maintenance			
Appropriation (000's)	6,320	7,456	9,867
Obligations (000's)	6,385	7,471	N.A.
Work Years (000's)	107	123	N.A.

	FY 1992 Actual	FY 1993 Actual	FY 1994 Enacted
Western Oregon Construction and Acquisition			
Appropriations (000's)	902	899	898
Obligations (000's)	916	718	N.A.
Work Years (000's)	10	9	N.A.
Western Oregon Renewable Resource Management (Excess Receipts)			
Obligations (000's)	4	N.A.	
Oregon and California Grant Lands -- Totals			
Appropriation (000's)	**89,137**	**82,415**	**87,052**
Obligations (000's)	**88,458***	**87,252***	**N.A.**
Work Years (000's)	**1,305**	**1,336**	**N.A.**
* Includes carryover from previous years			
Land Acquisition			
Appropriation (000's)	25,498	27,796	12,122
Obligations (000's)	15,987	26,954	N.A.
Work Years (000's)	62	62	N.A.
Forest Ecosystems Health and Recovery			
Appropriation (000's)	N.A.	991	0
Obligations (000's)	N.A.	667	N.A.
Work Years (000's)	N.A.	18	N.A.
Range Improvements			
Appropriation (000's)	10,687	10,747	10,025
Obligations (000's)	9,568	11,539	N.A.
Work Years (000's)	105	116	N.A.

	FY 1992 Actual	FY 1993 Actual	FY 1994 Enacted
Service Charges, Deposits and Forfeitures			
Appropriation (000's)	9,468	9,557	7,932
Obligations (000's)	9,066	10,495	N.A.
Work Years (000's)	104	111	N.A.
Miscellaneous Trust Funds Current			
Appropriation (000's)	7,767	7,280	7,505
Obligations (000's)	10,174	8,371	N.A.
Work Years (000's)	104	106	N.A.
Total Current			
Appropriation (000's)	**1,012,792**	**1,032,286**	**1,072,888**
Obligations (000's)	**969,089**	**996,439**	**N.A.**
Work Years (000's)	**11,542**	**12,490**	**N.A.**
Transfers	**(5,000)**	**N.A.**	

Payments of Bureau of Land Management Receipts to States, FY 1993 (Actual)

[Dollars are whole, rounded to the nearest thousand]

State	Mineral Leases and Permits*	Grazing Receipts Outside Grazing Districts	Grazing Receipts Inside Grazing Districts	Sale of Public Land and Materials	Other	Total
Alaska	19,000	—	—	7,000	—	26,000
Arizona	16,000	128,000	94,000	12,000	—	250,000
California	33,000	118,000	23,000	188,000	—	362,000
Colorado	49,000	40,000	96,000	13,000	11,000	209,000
Florida	—	—	—	2,000	—	2,000
Idaho	8,000	30,000	187,000	39,000	—	264,000
Montana	12,000	518,000**	156,000	43,000	—	769,000
Nebraska	—	1,000	—	—	—	1,000
Nevada	4,000	24,000	333,000	684,000***	—	1,045,000
New Mexico	214,000	211,000**	330,000	28,000	—	783,000
North Dakota	—	9,000	—	1,000	—	10,000
Oklahoma	24,000#	—	—	—	—	4,000
Oregon	6,000	44,000	138,000	456,000	69,316,000##	69,960,000
South Dakota	—	81,000	—	—	—	81,000
Utah	31,000	—	184,000	23,000	—	238,000
Washington	—	22,000	—	24.000	—	46,000
Wyoming	171,000	429,000	230,000	22,000	—	852,000
Totals:	**567,000**	**1,655,000**	**1,771,000**	**1,542,000**	**69,327,000**	**74,862,000**

* The BLM continues to make payments on receipts from the National Petroleum Reserve-Alaska and other minor categories of mineral receipts even though the Minerals Management Service has primary responsibility for mineral receipt collections.
** Includes National Grasslands, grazing and mineral receipts.
*** Includes Nevada land sales.
# Includes Oklahoma royalties.
Includes $68,626,276 from O&C Grant Lands and $690,214 from Coos Bay Wagon Road timber receipts.

Summary of Payments made by BLM to Eligible Units of Government by State

State/Territory	1993 Payment	State/Territory	1993 Payment
Alabama	$139,175	Montana	$8,239,592
Alaska	4,347,805	Nebraska	351,861
Arizona	8,696,248	Nevada	6,716,988
Arkansas	1,257,446	New Hampshire	94,332
California	10,459,027	New Jersey	40,730
Colorado	6,285,256	New Mexico	10,595,126
Connecticut	18,850	New York	35,205
Delaware	9,576	North Carolina	1,269,779
District of Columbia	49,513	North Dakota	549,463
Florida	1,281,825	Ohio	203,047
Georgia	699,913	Oklahoma	783,600
Guam	895	Oregon	2,843,000
Hawaii	9,950	Pennsylvania	211,044
Idaho	7,379,289	Puerto Rico	22,292
Illinois	313,252	South Carolina	302,709
Indiana	212,652	South Dakota	1,228,642
Iowa	127,815	Tennessee	472,483
Kansas	337,818	Texas	1,309,563
Kentucky	506,096	Utah	8,885,822
Louisiana	156,088	Vermont	243,975
Maine	95,200	Virgin Islands	10,918
Maryland	41,157	Virginia	1,102,214

Summary of Payments made by BLM to Eligible Units of Government by State

State/Territory	1993 Payment	State/Territory	1993 Payment
Massachusetts	$52,865	Washington	$4,034,049
Michigan	1,179,441	West Virginia	739,525
Minnesota	718,539	Wisconsin	411,283
Mississippi	327,514	Wyoming	6,789,331
Missouri	1,015,777		

Total: **$103,205,555**

BLM Offices Around the Nation

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Department of the Interior
1849 C Street, NW
Washington, D.C. 20240
(202) 208-5717

Service Center
Denver Federal Center
--Bldg. 50; P.O. Box 25047
Denver, CO 80225-0047
(303) 236-6452

National Training Center
9828 North 31st Ave.
Phoenix, AZ 85051
(602) 906-5500

National Interagency Fire Center
3833 South Development Ave.
Boise, ID 83705-5354
(208) 387-5457

BLM STATE OFFICES

Alaska State Office
222 West 7th Avenue, #13
Anchorage, AK 99513-7599
(907) 271-5555

Arizona State Office
3707 North 7th Street; P.O. Box 16563
Phoenix, AZ 85011
(602) 650-0504

California State Office
2800 Cottage Way, E-2841
Sacramento, CA 95825
(916) 979-2835

Colorado State Office
2850 Youngfield Street
Lakewood, CO 80215-7076
(303) 239-3670

Eastern States Office
7450 Boston Blvd.
Springfield, VA 22153
(703) 440-1713

Idaho State Office
3380 Americana Terrace
Boise, ID 83706
(208) 384-3014

Montana State Office
222 North 32nd Street; P.O. Box 36800
Billings, MT 59107-6800
(406) 255-2913

Nevada State Office
850 Harvard Way
Reno, NV 89520-0006
(702) 785-6586

New Mexico State Office
1474 Rodeo Drive; P.O. Box 27115
Santa Fe, NM 87502-0115
(505) 438-7514

Oregon State Office
1515 S.W. 5th Ave.; P.O. Box 2965
Portland, OR 97208-2965
(503) 952-6027

Utah State Office
324 South State Street; P.O. Box 45155
Salt Lake City, UT 84145-0155
(801) 539-4021

Wyoming State Office
2515 Warren Ave.; P.O. Box 1828
Cheyenne, WY 82003
(307) 775-6011

GLOSSARY OF ACRONYMS

ACEC	Areas of Critical Environmental Concern
ADP	Automated Data Processing
ALMRS	Automated Land and Mineral Record System
ANGTS	Alaska Natural Gas Transportation System
APHIS	Animal and Plant Health Inspection Service
ARPA	Archaeological Resources Protection Act of 1979
ASAP	Automated System for Acquisition Processing
AUM	Animal Unit Month
BLM	Bureau of Land Management
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESP	Experimental Stewardship Program
FFS	Federal Financial System
FLPMA	Federal Land Policy and Management Act
FOGRMA	Federal Oil and Gas Royalty Management Act
FWS	Fish and Wildlife Service
FY	Fiscal Year
GAO	General Accounting Office
GCDP	Geographic Coordinate Data Base
GCRP	Global Change Research Program
GIS	Geographic Information System
GSA	General Services Administration
HCA	Habitat Conservation Area
I&E	Inspection and Enforcement
IDEAS	Interior Department Electronic Acquisition System
IRM	Information Resources Management
LMU	Logical Mining Unit
LWCF	Land and Water Conservation Fund
MLR	Management of Lands and Resources
MMS	Minerals Management Service
MOU	Memorandum of Understanding
NPR	National Performance Review (Reinventing Government)
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
NICC	National Interagency Coordination Center
NIFC	National Interagency Fire Center (formerly Boise Interagency Fire Center)
NTC	National Training Center (formerly Phoenix Training Center)
NPS	National Park Service
OHV	Off-Highway Vehicle
OMB	Office of Management and Budget
PILT	Payments in Lieu of Taxes
PRLA	Preference Right Lease Applications

R&PP	Recreation and Public Purposes Act
RMP	Resource Management Plan
ROWs	Rights-of-Way
SMAT	Solid Minerals Assistance Teams
TAMP	Texas Acquired Mineral Project
TAPS	Trans-Alaska Pipeline System
WSA	Wilderness Study Area

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